



# STIC Search Report

## EIC 2100

STIC Database Tracking Number: 136793

**TO: Michael B Holmes**  
**Location: rnd 5a49**  
**Art Unit : 2121**  
**Friday, November 05, 2004**

**Case Serial Number: 09/876929**

**From: Terese Esterheld**  
**Location: EIC 2100**  
**RND 4B28**  
**Phone: 571-272-3524**

**Terese.esterheld@uspto.gov**

### Search Notes

Dear Examiner Holmes,

Attached, please find the results of your search request for application 09/876929. I have concentrated on finding information on Shape in a space, Pixel data, Multidimensional space, digital signals, sequence binary numbers or eigenvectors, Center of gravity or identified regions, Incrementing a counter, Consecutive frames.

Items have been marked that may be of value to you. Please look over the complete package as there are many concepts covered and only a small number have been marked. Unmarked items may cover an aspect that you may be able to use.

Please let me know if you need additional information on this search.

Thank you for coming to EIC 2100.

Terese Esterheld



Set	Items	Description
S1	42	AU=(PIRIM, P? OR PIRIM P?)
File 347:	JAPIO	Nov 1976-2004/Jun(Updated 041004)
	(c)	2004 JPO & JAPIO
File 348:	EUROPEAN PATENTS	1978-2004/Oct W04
	(c)	2004 European Patent Office
File 349:	PCT FULLTEXT	1979-2002/UB=20041028,UT=20041021
	(c)	2004 WIPO/Univentio
File 350:	Derwent WPIX	1963-2004/UD,UM &UP=200470
	(c)	2004 Thomson Derwent

1/5/1 (Item 1 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2004 European Patent Office. All rts. reserv.

01721786

**ACTIVE VISUAL PERCEPTION METHOD AND DEVICE FOR CHARACTERISATION AND RECOGNITION THROUGH THE ANALYSIS OF MONO/MULTIDIMENSIONAL PARAMETERS IN MULTICLASS COMPUTING UNITS AND HISTOGRAM PROCESSING, DYNAMIC UNIT RECRUITMENT**

**VERFAHREN UND VORRICHTUNG ZUR AKTIVEN VISUELLEN WAHRNEHMUNG FUR DIE CHARAKTERISIERUNG UND ERKENNUNG DURCH DIE ANALYSE VON MONO/MERHFACHPARAMETERN IN MIT MEHREREN KLASSEN AUSGESTATTETEN RECHNUNGS- UND HISTOGRAMMVERARBEITUNGSEINHEITEN UND DYNAMISCHE REKRUTIERUNG DER EINHEITEN**

**PROCEDE ET DISPOSITIF DE PERCEPTION VISUELLE ACTIVE POUR CARACTERISATION ET RECONNAISSANCE PAR ANALYSE DE PARAMETRES MONO/MULTIDIMENSIONNELS DANS DES UNITES MULTICLASSES DE CALCUL ET TRAITEMENT D HISTOGRAMME, RECRUTEMENT DYNAMIQUE D UNITES**

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Applicant designated States: all)

INVENTOR:

**PIRIM, Patrick**, 56 Rue de Patay, F-75013 PARIS, (FR)

PATENT (CC, No, Kind, Date):

WO 2004015630 040219

APPLICATION (CC, No, Date): EP 2003756531 030806; WO 2003FR2478 030806

PRIORITY (CC, No, Date): FR 0210064 020807; FR 0210065 020807; FR 0210066 020807; FR 0210067 020807

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS: G06T-007/60

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 040421 A2 International application. (Art. 158(1))

Application: 040421 A2 International application entering European phase

LANGUAGE (Publication,Procedural,Application): French; French; French

1/5/2 (Item 2 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2004 European Patent Office. All rts. reserv.

01568364

**PROCESSING DEVICE AND METHOD FOR AN AUTOMATIC PERCEPTION SYSTEM**

**VERARBEITUNGSVERFAHREN UND -VORRICHTUNG FUR AUTOMATISCHES WAHRNEHMUNGSSYSTEM**

**DISPOSITIF ET PROCEDE DE TRAITEMENT POUR SYSTEME DE PERCEPTION AUTOMATIQUE**

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Applicant designated States: all)

INVENTOR:

**PIRIM, Patrick**, 56, rue de Patay, F-75013 Paris, (FR)

LEGAL REPRESENTATIVE:

Michelet, Alain et al (44942), Cabinet Harle et Phelip 7, rue de Madrid, 75008 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1419482 A2 040519 (Basic)

WO 2003015029 030220

APPLICATION (CC, No, Date): EP 2002772498 020809; WO 2002FR2849 020809

PRIORITY (CC, No, Date): FR 0110750 010810

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06T-005/00

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 030416 A2 International application. (Art. 158(1))  
Application: 030416 A2 International application entering European  
phase  
Application: 040519 A2 Published application without search report  
Examination: 040728 A2 Date of request for examination: 20040527  
LANGUAGE (Publication,Procedural,Application): French; French; French

1/5/3 (Item 3 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01504048

**METHOD AND DEVICE FOR ADAPTING THE SENSITIVITY FOR DETECTING A PARAMETER  
CARRIED BY A SIGNAL**

**VERFAHREN UND VORRICHTUNG ZUR ANPASSUNG DER DETEKTIONSEMPFINDLICHKEIT EINES  
DURCH EIN SIGNAL GETRAGENEN PARAMETERS**

**PROCEDE ET DISPOSITIF D'ADAPTION DE LA SENSIBILITE DE DETECTION D'UN  
PARAMETRE PORTE PAR UN SIGNAL**

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Applicant designated States: all)

INVENTOR:

**PIRIM, Patrick** , 56, rue de Patay, F-75013 PARIS, (FR)

LEGAL REPRESENTATIVE:

Catherine, Alain et al (14529), Cabinet Harle & Phelip 7, rue de Madrid,  
75008 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1364342 A1 031126 (Basic)  
WO 2002075659 020926

APPLICATION (CC, No, Date): EP 2002700266 020222; WO 2002EP1900 020222

PRIORITY (CC, No, Date): FR 012530 010223

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06T-007/20; G06T-007/00

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 021120 A1 International application. (Art. 158(1))

Application: 021120 A1 International application entering European  
phase

Application: 031126 A1 Published application with search report

Examination: 031126 A1 Date of request for examination: 20030923

LANGUAGE (Publication,Procedural,Application): French; French; French

1/5/4 (Item 4 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01483350

**METHOD AND DEVICE FOR LOCATING AN OBJECT BY MEANS OF THE SHAPE, DIMENSIONS  
AND/OR ORIENTATION THEREOF**

**VERFAHREN UND VORRICHTUNG ZUR ERFASSUNG EINES OBJEKTES DURCH SEINER FORM,  
GROSSE UND/ODER ORIENTIERUNG**

**PROCEDE ET DISPOSITIF DE REPERAGE D'UN OBJET PAR SA FORME, SA DIMENSION  
ET/OU SON ORIENTATION**

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Applicant designated States: all)

INVENTOR:

**PIRIM, Patrick** , 56, rue de Patay, F-75013 Paris, (FR)

LEGAL REPRESENTATIVE:

Catherine, Alain et al (14529), Cabinet Harle & Phelip 7, rue de Madrid,  
75008 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1364341 A1 031126 (Basic)  
WO 2002069265 020906



APPLICATION (CC, No, Date): EP 2002716806 020222; WO 2002EP1899 020222  
PRIORITY (CC, No, Date): FR 012539 010223  
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR  
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI  
INTERNATIONAL PATENT CLASS: G06T-007/00; G06K-009/00  
NOTE:

No A-document published by EPO  
LEGAL STATUS (Type, Pub Date, Kind, Text):  
Application: 021030 A1 International application. (Art. 158(1))  
Application: 021030 A1 International application entering European  
phase  
Application: 031126 A1 Published application with search report  
Examination: 031126 A1 Date of request for examination: 20030923  
LANGUAGE (Publication,Procedural,Application): French; French; French

1/5/5 (Item 5 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01345081

**AUTOMATIC PERCEPTION METHOD AND DEVICE**  
**VERFAHREN UND VORRICHTUNG ZUR AUTOMATISCHEN WAHRNEHMUNG**  
**PROCEDE ET DISPOSITIF DE PERCEPTION AUTOMATIQUE**

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Proprietor designated states: all)

INVENTOR:

**PIRIM, Patrick**, 56, rue Patay, F-75013 Paris, (FR)

LEGAL REPRESENTATIVE:

Catherine, Alain (14529), Cabinet Harle & Phelip 7, rue de Madrid, 75008  
Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1259939 A2 021127 (Basic)  
EP 1259939 B1 040506  
WO 2001063557 010830

APPLICATION (CC, No, Date): EP 2001909896 010223; WO 2001FR546 010223  
PRIORITY (CC, No, Date): FR 002355 000224  
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR  
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI  
INTERNATIONAL PATENT CLASS: G06T-005/00  
CITED PATENTS (EP B): EP 46110 A; FR 2751772 A; US 5793888 A  
NOTE:

No A-document published by EPO  
LEGAL STATUS (Type, Pub Date, Kind, Text):  
Application: 011024 A2 International application. (Art. 158(1))  
Application: 011024 A2 International application entering European  
phase  
Application: 021127 A2 Published application without search report  
Examination: 021204 A2 Date of request for examination: 20021004  
Grant: 040506 B1 Granted patent  
Assignee: 040512 B1 Transfer of rights to new proprietor: Holding  
B.E.V. S.A. (2810771) Suite 2424 9 Chester Mews  
London SW1X 7AH GB  
Assignee: 040526 B1 Transfer of rights to new proprietor: Holding  
B.E.V. S.A. (2810772) 180, rue des Aubepines  
1145 Luxembourg LU

LANGUAGE (Publication,Procedural,Application): French; French; French

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200419	2066
CLAIMS B	(German)	200419	1827
CLAIMS B	(French)	200419	2153
SPEC B	(French)	200419	12115
Total word count - document A			0
Total word count - document B			18161

1/5/6 (Item 6 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01144946

**COMPRESSION AND DECOMPRESSION SYSTEM FOR DIGITAL VIDEO SIGNALS**  
**KOMPRESSIONS- UND DEKOMPRESSIONSSYSTEM FUR DIGITALE VIDEOSIGNALE**  
**SYSTEME DE COMPRESSION ET DE DECOMPRESSION POUR DES SIGNAUX VIDEO**  
**NUMERIQUES**

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Proprietor designated states: all)

INVENTOR:

**PIRIM, Patrick**, 56, rue Patay, F-75013 Paris, (FR)

LEGAL REPRESENTATIVE:

Catherine, Alain (14529), Cabinet Harle & Phelip 7, rue de Madrid, 75008  
Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1110408 A2 010627 (Basic)  
EP 1110408 B1 030514  
WO 2000013420 000309

APPLICATION (CC, No, Date): EP 99944529 990826; WO 99EP6288 990826

PRIORITY (CC, No, Date): FR 9810837 980828; FR 9816679 981230

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: H04N-007/26; H04N-007/50; H04N-007/36

CITED PATENTS (EP B): EP 543197 A; EP 679032 A; WO 95/20863 A; WO 96/14711  
A; FR 2712449 A; US 5495292 A; US 5777678 A

CITED REFERENCES (EP B):

AD HOC GROUP ON MPEG-4 VIDEO VM EDITING: "APPENDIX A: COMBINED MOTION  
SHAPE TEXTURE CODING" MPEG-4 VIDEO VERIFICATION MODEL VERSION 7.0 -  
ISO/IEC JTC1/SC29/WG11 MPEG97/N1642, pages 195-203, XP002090865

MARTUCCI S A ET AL: "A ZEROTREE WAVELET VIDEO CODER" IEEE TRANSACTIONS ON  
CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, vol. 7, no. 1, 1 February  
1997 (1997-02-01), pages 109-118, XP000678884;

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	000503	A2	International application. (Art. 158(1))
Application:	000503	A2	International application entering European phase
Application:	010627	A2	Published application without search report
Examination:	010627	A2	Date of request for examination: 20010328
Examination:	020508	A2	Date of dispatch of the first examination report: 20020322
Grant:	030514	B1	Granted patent
Lapse:	031210	B1	Date of lapse of European Patent in a contracting state (Country, date): SE 20030814,
Lapse:	040107	B1	Date of lapse of European Patent in a contracting state (Country, date): GR 20030814, NL 20030514, PT 20030814, SE 20030814,
Lapse:	040114	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20030514, GR 20030814, NL 20030514, PT 20030814, SE 20030814,
Lapse:	040128	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20030514, FI 20030514, GR 20030814, NL 20030514, PT 20030814, SE 20030814,
Oppn None:	040506	B1	No opposition filed: 20040217
Lapse:	040602	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20030514, DK 20030814, FI 20030514, GR

20030814, NL 20030514, PT 20030814, SE  
20030814,  
Lapse: 040901 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20030514, CY 20030826, DK 20030814, FI  
20030514, GR 20030814, NL 20030514, PT  
20030814, SE 20030814,  
Lapse: 040922 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20030514, CY 20030826, DK 20030814, FI  
20030514, GR 20030814, LU 20030826, NL  
20030514, PT 20030814, SE 20030814,

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200320	4031
CLAIMS B	(German)	200320	3757
CLAIMS B	(French)	200320	4115
SPEC B	(English)	200320	27286
Total word count - document A			0
Total word count - document B			39189
Total word count - documents A + B			39189

1/5/7 (Item 7 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01141532

**IMAGE PROCESSING APPARATUS AND METHOD**  
**GERAT UND VERFAHREN ZUR BILDVERARBEITUNG**  
**APPAREIL ET PROCEDE POUR LE TRAITEMENT D'IMAGES**  
PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Proprietor designated states: all)  
Pirim, Patrick, (2810400), 56, rue Patay, 75013 Paris, (FR), (Proprietor  
designated states: all)  
Binford, Thomas, (2810780), 16012 Flintlock Road, Cupertino, CA 95014,  
(US), (Proprietor designated states: all)

INVENTOR:

**PIRIM, Patrick** , 56 rue Patay, F-75013 Paris, (FR)  
**BINFORD, Thomas**, 16012 Flintlock Road, Cupertino, CA 95014, (US)

LEGAL REPRESENTATIVE:

Catherine, Alain et al (14529), Cabinet Harle & Phelip 7, rue de Madrid,  
75008 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1105840 A1 010613 (Basic)  
EP 1105840 B1 021120  
WO 2000011609 000302

APPLICATION (CC, No, Date): EP 99903674 990125; WO 99EP425 990125

PRIORITY (CC, No, Date): WO 98EP5383 980825

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: G06T-007/00; G06K-009/46

CITED PATENTS (EP B): EP 380659 A; EP 394959 A

CITED REFERENCES (EP B):

YAMADA K ET AL: "IMAGE UNDERSTANDING BASED ON EDGE HISTOGRAM METHOD FOR  
REAR-END COLLISION AVOIDANCE SYSTEM" PROCEEDINGS OF THE VEHICLE  
NAVIGATION AND INFORMATION SYSTEMS CONFERENCE, YOKOHAMA, AUG. 31 -  
SEPT. 2, 1994, 31 August 1994, pages 445-450, XP000641348 INSTITUTE OF  
ELECTRICAL AND ELECTRONICS ENGINEERS;

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010613 A1 Published application with search report  
Application: 20000426 A1 International application. (Art. 158(1))  
Lapse: 041027 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT

20021120, CY 20030125, FI 20021120, GR  
 20021120, IE 20030127, NL 20021120, PT  
 20030220, SE 20030220,

Oppn None: 031112 B1 No opposition filed: 20030821  
 Lapse: 030910 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): AT  
 20021120, GR 20021120, NL 20021120, PT  
 20030220, SE 20030220,

Lapse: 030723 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): NL  
 20021120, PT 20030220, SE 20030220,

Lapse: 030507 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): SE  
 20030220,

Grant: 021120 B1 Granted patent  
 Examination: 010613 A1 Date of request for examination: 20010326  
 Examination: 011004 A1 Date of dispatch of the first examination  
 report: 20010817

Assignee: 030305 B1 Transfer of rights to new proprietor: Holding  
 B.E.V. S.A. (2810770) 69, route d'Esch 2953  
 Luxembourg LU

Lapse: 030716 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): PT  
 20030220, SE 20030220,

Lapse: 030730 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): GR  
 20021120, NL 20021120, PT 20030220, SE  
 20030220,

Lapse: 031022 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): AT  
 20021120, FI 20021120, GR 20021120, NL  
 20021120, PT 20030220, SE 20030220,

Lapse: 040407 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): AT  
 20021120, FI 20021120, GR 20021120, IE  
 20030127, NL 20021120, PT 20030220, SE  
 20030220,

Application: 20000426 A1 International application entering European  
 phase

LANGUAGE (Publication,Procedural,Application): English; English; English  
 FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200247	3293
CLAIMS B	(German)	200247	3311
CLAIMS B	(French)	200247	3625
SPEC B	(English)	200247	16079
Total word count - document A			0
Total word count - document B			26308
Total word count - documents A + B			26308

1/5/8 (Item 8 from file: 348)  
 DIALOG(R) File 348:EUROPEAN PATENTS  
 (c) 2004 European Patent Office. All rts. reserv.

01140729

**IMAGE PROCESSING APPARATUS  
 GERAT ZUR BILDVERARBEITUNG**

**APPAREIL POUR LE TRAITEMENT D'IMAGES**

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
 (Proprietor designated states: all)

INVENTOR:

**PIRIM, Patrick**, 56, rue Patay, F-75013 Paris, (FR)

LEGAL REPRESENTATIVE:

Catherine, Alain et al (14529), Cabinet Harle & Phelip 7, rue de Madrid,  
 75008 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1105842 A1 010613 (Basic)  
EP 1105842 B1 021002  
WO 2000011610 000302  
APPLICATION (CC, No, Date): EP 98946426 980825; WO 98EP5383 980825  
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE  
INTERNATIONAL PATENT CLASS: G06T-007/20  
CITED PATENTS (EP B): WO 98/05002 A  
NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010613 A1 Published application with search report  
Application: 20000426 A1 International application. (Art. 158(1))  
Lapse: 040121 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20021002, BE 20021002, CH 20021002, LI  
20021002, ES 20030429, FI 20021002, GR  
20021002, NL 20021002, PT 20030102, SE  
20030102,  
Lapse: 031022 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20021002, CH 20021002, LI 20021002, FI  
20021002, GR 20021002, NL 20021002, PT  
20030102, SE 20030102,  
Lapse: 030910 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20021002, GR 20021002, NL 20021002, PT  
20030102, SE 20030102,  
Lapse: 030723 B1 Date of lapse of European Patent in a  
contracting state (Country, date): NL  
20021002, PT 20030102, SE 20030102,  
Lapse: 030702 B1 Date of lapse of European Patent in a  
contracting state (Country, date): SE  
20030102,  
Change: 020109 A1 Title of invention (French) changed: 20011122  
Change: 020109 A1 Title of invention (English) changed: 20011122  
Change: 020109 A1 Title of invention (German) changed: 20011122  
Examination: 010816 A1 Date of dispatch of the first examination  
report: 20010628  
Examination: 010613 A1 Date of request for examination: 20010326  
Change: 020102 A1 Title of invention (German) changed: 20011115  
Change: 020102 A1 Title of invention (English) changed: 20011115  
Change: 020102 A1 Title of invention (French) changed: 20011115  
Grant: 021002 B1 Granted patent  
Lapse: 030716 B1 Date of lapse of European Patent in a  
contracting state (Country, date): PT  
20030102, SE 20030102,  
Lapse: 030730 B1 Date of lapse of European Patent in a  
contracting state (Country, date): GR  
20021002, NL 20021002, PT 20030102, SE  
20030102,  
Oppn None: 030924 B1 No opposition filed: 20030703  
Lapse: 030924 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20021002, CH 20021002, LI 20021002, GR  
20021002, NL 20021002, PT 20030102, SE  
20030102,  
Lapse: 031217 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20021002, BE 20021002, CH 20021002, LI  
20021002, FI 20021002, GR 20021002, NL  
20021002, PT 20030102, SE 20030102,  
Application: 20000426 A1 International application entering European  
phase  
LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:  
Available Text Language Update Word Count

CLAIMS B	(English)	200240	520
CLAIMS B	(German)	200240	536
CLAIMS B	(French)	200240	587
SPEC B	(English)	200240	15139
Total word count - document A			0
Total word count - document B			16782
Total word count - documents A + B			16782

1/5/9 (Item 9 from file: 348)  
 DIALOG(R) File 348:EUROPEAN PATENTS  
 (c) 2004 European Patent Office. All rts. reserv.

01073736

**METHOD AND APPARATUS FOR DETECTION OF DROWSINESS**  
**VERFAHREN UND VORRICHTUNG ZUR DETEKTIERUNG DER SCHLAFRIGKEIT DES FAHRERS**  
**PROCEDE ET APPAREIL DE DETECTION DE LA SOMNOLENCE**  
 PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
 (Proprietor designated states: all)  
 Pirim, Patrick, (2810400), 56, rue Patay, 75013 Paris, (FR), (Proprietor  
 designated states: all)  
 Binford, Thomas, (2810780), 16012 Flintlock Road, Cupertino, CA 95014,  
 (US), (Proprietor designated states: all)

INVENTOR:

**PIRIM, Patrick**, 56, rue Patay, F-75013 Paris, (FR)  
**BINFORD, Thomas**, 16012 Flintlock Road, Cupertino, CA 95014, (US)

LEGAL REPRESENTATIVE:

Michelet, Alain (44943), Cabinet Harle et Phelip, 7, rue de Madrid, 75008  
 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1050033 A1 001108 (Basic)  
 EP 1050033 B1 020619  
 WO 9936893 990722

APPLICATION (CC, No, Date): EP 99906160 990115; WO 99EP300 990115

PRIORITY (CC, No, Date): FR 98378 980115; WO 98EP5383 980825

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
 LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: G08B-021/00

CITED PATENTS (EP B): WO 97/01246 A; WO 98/05002 A; DE 19715519 A

CITED PATENTS (WO A): WO 9805002 A ; DE 19715519 A ; WO 9701246 A

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 001108 A1 Published application with search report

Application: 990922 A1 International application. (Art. 158(1))

Lapse: 041027 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): AT  
 20020619, BE 20020619, CY 20030115, DK  
 20020919, FI 20020619, GR 20020619, IE  
 20030115, NL 20020619, PT 20020923, SE  
 20020919,

Lapse: 040929 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): AT  
 20020619, BE 20020619, DK 20020919, FI  
 20020619, GR 20020619, IE 20030115, NL  
 20020619, PT 20020923, SE 20020919,

Lapse: 031126 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): AT  
 20020619, BE 20020619, DK 20020919, GR  
 20020619, NL 20020619, PT 20020923, SE  
 20020919,

Oppn None: 030611 B1 No opposition filed: 20030320

Lapse: 030514 B1 Date of lapse of European Patent in a  
 contracting state (Country, date): AT  
 20020619, GR 20020619, NL 20020619, SE  
 20020919,

Lapse: 021204 B1 Date of lapse of European Patent in a

contracting state (Country, date): SE  
20020919,

Priority: 020612 A1 Priority information changed: 20020425  
Examination: 001108 A1 Date of request for examination: 20000816  
Examination: 010919 A1 Date of dispatch of the first examination  
report: 20010808

Grant: 020619 B1 Granted patent  
Lapse: 030305 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020619, NL 20020619, SE 20020919,

Lapse: 030521 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020619, GR 20020619, NL 20020619, PT  
20020923, SE 20020919,

Lapse: 031112 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020619, DK 20020919, GR 20020619, NL  
20020619, PT 20020923, SE 20020919,

Lapse: 040407 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020619, BE 20020619, DK 20020919, GR  
20020619, IE 20030115, NL 20020619, PT  
20020923, SE 20020919,

Lapse: 040929 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020619, BE 20020619, DK 20020919, FI  
20020619, GR 20020619, IE 20030115, NL  
20020619, PT 20020923, SE 20020919,

Application: 990922 A1 International application entering European  
phase

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200225	2313
CLAIMS B	(German)	200225	2211
CLAIMS B	(French)	200225	2394
SPEC B	(English)	200225	18639
Total word count - document A			0
Total word count - document B			25557
Total word count - documents A + B			25557

1/5/10 (Item 10 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01073156

METHOD AND DEVICE FOR DETECTING DROWSINESS AND PREVENTING A DRIVER OF A  
MOTOR VEHICLE FROM FALLING ASLEEP  
VERFAHREN UND VORRICHTUNG ZUR ERFASSUNG UND VERHINDERUNG DES EINSCHLAFENS  
EINES FAHRZEUGFUHRERS  
PROCEDE ET DISPOSITIF POUR DETECTER ET PREVENIR L'ENDORMISSEMENT DU  
CONDUCTEUR D'UN VEHICULE AUTOMOBILE

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Proprietor designated states: all)

INVENTOR:

PIRIM, Patrick , 56, rue Patay, F-75013 Paris, (FR)

LEGAL REPRESENTATIVE:

Michelet, Alain (44942), Cabinet Harle et Phelip 7, rue de Madrid, 75008  
Paris, (FR)

PATENT (CC, No, Kind, Date): EP 1050032 A1 001108 (Basic)  
EP 1050032 B1 020724  
WO 9936894 990722

APPLICATION (CC, No, Date): EP 99900922 990114; WO 99FR60 990114

PRIORITY (CC, No, Date): FR 98378 980115

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

LU; MC; NL; PT; SE  
INTERNATIONAL PATENT CLASS: G08B-021/00  
CITED PATENTS (EP B): WO 97/01246 A; DE 19715519 A  
CITED PATENTS (WO A): XP 641294  
CITED REFERENCES (EP B):

UENO H ET AL: "DEVELOPMENT OF DROWSINESS DETECTION SYSTEM" PROCEEDINGS OF  
THE VEHICLE NAVIGATION AND INFORMATION SYSTEMS CONFERENCE, YOKOHAMA,  
AUG. 31 - SEPT. 2, 1994, 31 août 1994, pages 15-20, XP000641294  
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS;

CITED REFERENCES (WO A):

UENO H ET AL: "DEVELOPMENT OF DROWSINESS DETECTION SYSTEM" PROCEEDINGS  
OF THE VEHICLE NAVIGATION AND INFORMATION SYSTEMS CONFERENCE, YOKOHAMA,  
AUG. 31 - SEPT. 2, 1994, 31 août 1994, pages 15-20, XP000641294  
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS;

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 001108 A1 Published application with search report  
Application: 990922 A1 International application. (Art. 158(1))  
Lapse: 041027 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020724, BE 20030131, CY 20030114, DK  
20021024, FI 20020724, GR 20020724, IE  
20020724, NL 20020724, PT 20021025, SE  
20021024,  
Lapse: 031112 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020724, DK 20021024, FI 20020724, GR  
20020724, IE 20020724, NL 20020724, PT  
20021025, SE 20021024,  
Lapse: 030716 B1 Date of lapse of European Patent in a  
contracting state (Country, date): FI  
20020724, GR 20020724, IE 20020724, NL  
20020724, PT 20021025, SE 20021024,  
Oppn None: 030716 B1 No opposition filed: 20030425  
Lapse: 030514 B1 Date of lapse of European Patent in a  
contracting state (Country, date): FI  
20020724, GR 20020724, NL 20020724, SE  
20021024,  
Lapse: 030305 B1 Date of lapse of European Patent in a  
contracting state (Country, date): NL  
20020724, SE 20021024,  
Grant: 020724 B1 Granted patent  
Assignee: 011010 A1 Transfer of rights to new applicant: Holding  
B.E.V. S.A. (2810770) 69, route d'Esch 2953  
Luxembourg LU  
Examination: 001108 A1 Date of request for examination: 20000816  
Examination: 011024 A1 Date of dispatch of the first examination  
report: 20010907  
Lapse: 030115 B1 Date of lapse of European Patent in a  
contracting state (Country, date): SE  
20021024,  
Lapse: 030402 B1 Date of lapse of European Patent in a  
contracting state (Country, date): FI  
20020724, NL 20020724, SE 20021024,  
Lapse: 030528 B1 Date of lapse of European Patent in a  
contracting state (Country, date): FI  
20020724, GR 20020724, NL 20020724, PT  
20021025, SE 20021024,  
Lapse: 030730 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020724, FI 20020724, GR 20020724, IE  
20020724, NL 20020724, PT 20021025, SE  
20021024,  
Lapse: 040707 B1 Date of lapse of European Patent in a  
contracting state (Country, date): AT  
20020724, BE 20030131, DK 20021024, FI



20020724, GR 20020724, IE 20020724, NL  
20020724, PT 20021025, SE 20021024,

Application: 990922 A1 International application entering European  
phase

LANGUAGE (Publication,Procedural,Application): French; French; French

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200230	2269
CLAIMS B	(German)	200230	2148
CLAIMS B	(French)	200230	2236
SPEC B	(French)	200230	7935
Total word count - document A			0
Total word count - document B			14588
Total word count - documents A + B			14588

1/5/11 (Item 11 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

(c) 2004 European Patent Office. All rts. reserv.

00928386

METHOD AND DEVICE FOR REAL-TIME DETECTION, LOCATION AND DETERMINATION OF  
THE SPEED AND DIRECTION OF MOVEMENT OF AN AREA OF RELATIVE MOVEMENT IN  
A SCENE

VERFAHREN UND GERAT ZUM LOKALISIEREN EINER SICH BEWEGENDEN ZONE UND  
BESTIMMUNG DER SCHNELLHEIT UND RICHTUNG DER BEWEGUNG EINES GEBIETES VON  
RELATIVER BEWEGUNG IN EINER SZENE

PROCEDE ET DISPOSITIF FONCTIONNANT EN TEMPS REEL, POUR LE REPERAGE ET LA  
LOCALISATION D'UNE ZONE EN MOUVEMENT RELATIF DANS UNE SCENE, AINSI QUE  
POUR LA DETERMINATION DE LA VITESSE ET DE LA DIRECTION DU DEPLACEMENT

PATENT ASSIGNEE:

Holding B.E.V. S.A., (2810770), 69, route d'Esch, 2953 Luxembourg, (LU),  
(Proprietor designated states: all)

INVENTOR:

PIRIM, Patrick , 56, rue Patay, F-75013 Paris, (FR)

LEGAL REPRESENTATIVE:

Phelip, Bruno et al (17811), c/o Cabinet Harle & Phelip 7, rue de Madrid,  
75008 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 912964 A1 990506 (Basic)

EP 912964 B1 011031

WO 9805002 980205

APPLICATION (CC, No, Date): EP 97934605 970722; WO 97FR1354 970722

PRIORITY (CC, No, Date): FR 969420 960726

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; IT; LI; NL; PT; SE

INTERNATIONAL PATENT CLASS: G06T-007/20

CITED PATENTS (EP B): US 5488430 A

CITED PATENTS (WO A): XP 526830 0

CITED REFERENCES (EP B):

TOMITA A ET AL: "HAND SHAPE EXTRACTION FROM A SEQUENCE OF DIGITIZED  
GRAY-SCALE IMAGES" PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON  
INDUSTRIAL ELECTRONIC CONTROL AND INSTRUMENTATION. (IECON), BOLOGNA,  
SEPT. 5 - 9, 1994 SPECIAL SESSIONS, SIGNAL PROCESSING AND CONTROL, vol.  
3 OF 3, 5 septembre 1994, INSTITUTE OF ELECTRICAL AND ELECTRONICS  
ENGINEERS, pages 1925-1930, XP000526830;

CITED REFERENCES (WO A):

TOMITA A ET AL: "HAND SHAPE EXTRACTION FROM A SEQUENCE OF DIGITIZED  
GRAY-SCALE IMAGES" PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON  
INDUSTRIAL ELECTRONIC CONTROL AND INSTRUMENTATION. (IECON), BOLOGNA,  
SEPT. 5 - 9, 1994 SPECIAL SESSIONS, SIGNAL PROCESSING AND CONTROL, vol.  
3 OF 3, 5 septembre 1994, INSTITUTE OF ELECTRICAL AND ELECTRONICS  
ENGINEERS, pages 1925-1930, XP000526830;

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Examination: 010207 A1 Date of dispatch of the first examination  
report: 20001227

Application: 980603 A1 International application (Art. 158(1))

Oppn None: 021023 B1 No opposition filed: 20020801  
Assignee: 010912 A1 Transfer of rights to new applicant: Holding  
B.E.V. S.A. (2810770) 69, route d'Esch 2953  
Luxembourg LU  
Grant: 011031 B1 Granted patent  
Application: 990506 A1 Published application (A1with Search Report  
;A2without Search Report)  
Examination: 990506 A1 Date of filing of request for examination:  
990226

LANGUAGE (Publication,Procedural,Application): French; French; French  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200144	2643
CLAIMS B	(German)	200144	2387
CLAIMS B	(French)	200144	2598
SPEC B	(French)	200144	17116
Total word count - document A			0
Total word count - document B			24744
Total word count - documents A + B			24744

1/5/12 (Item 12 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

00407752

**PROCESS AND DEVICE FOR TRANSMITTING NUMERICAL DATA.**  
**VERFAHREN UND VORRICHTUNG ZUR DIGITALEN DATENUBERTRAGUNG.**  
**PROCEDE ET DISPOSITIF DE TRANSMISSION DE DONNEES NUMERIQUES.**  
PATENT ASSIGNEE:

Marchand, Renaud, (1060860), , F-33410 Cadillac sur Garonne, (FR),  
(applicant designated states: AT;BE;CH;DE;GB;IT;LI;LU;NL;SE)  
Bonnaval-Lamothe, Michel, (550790), Cote-Belle, F-33410 Cadillac sur  
Garonne, (FR), (applicant designated states:  
AT;BE;CH;DE;GB;IT;LI;LU;NL;SE)

SOCIETE DE RECHERCHE DEVELOPEMENT ET APPLICATION EN MATIERE BREVETABLE  
(SRDAMB), (1060851), 33, Boulevard Saint-Denis, F-92400 Courbevoie,  
(FR), (applicant designated states: AT;BE;CH;DE;GB;IT;LI;LU;NL;SE)

INVENTOR:

**PIRIM, Patrick** , 1, allée des Catalpas, F-78390 Montigny-le-Broteneux,  
(FR)

LEGAL REPRESENTATIVE:

Thebault, Jean-Louis (18681), Cabinet Thebault S.A. 1 Allées de Chartres,  
F-33000 Bordeaux, (FR)

PATENT (CC, No, Kind, Date): EP 423119 A1 910424 (Basic)  
EP 423119 B1 941214  
WO 9006030 900531

APPLICATION (CC, No, Date): EP 89901333 881123; WO 88FR571 881123

PRIORITY (CC, No, Date): EP 89901333 881123; WO 88FR571 881123

DESIGNATED STATES: AT; BE; CH; DE; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: H04L-027/10;

CITED REFERENCES (EP A):

See also references of WO9006030;

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 910424 A1 Published application (A1with Search Report  
;A2without Search Report)

Examination: 910424 A1 Date of filing of request for examination:  
901213

Change: 910918 A1 Representative (change)

Examination: 930512 A1 Date of despatch of first examination report:  
930326

Grant: 941214 B1 Granted patent

Lapse: 951004 B1 Date of lapse of the European patent in a  
Contracting State: AT 941214

Lapse: 951018 B1 Date of lapse of the European patent in a

Contracting State: AT 941214, SE 950314

Oppn None: 951206 B1 No opposition filed

LANGUAGE (Publication,Procedural,Application): French; French; French

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	3399
CLAIMS B	(German)	EPBBF1	3032
CLAIMS B	(French)	EPBBF1	3464
SPEC B	(French)	EPBBF1	6225
Total word count - document A			0
Total word count - document B			16120
Total word count - documents A + B			16120

1/5/13 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

01143172 \*\*Image available\*\*

DEVICE FOR REMOTE VIDEO SURVEILLANCE BY PORTABLE TELEPHONE, OPERATING  
METHOD, USE AND REMOTE SURVEILLANCE NETWORK  
DISPOSITIF DE TELESURVEILLANCE VIDEO PAR TELEPHONE PORTABLE, PROCEDE  
D'EXPLOITATION, APPLICATION ET RESEAU DE TELESURVEILLANCE

Patent Applicant/Assignee:

HOLDING B E V S A, 180, rue des Aubepines, L-1145 Luxembourg, LU, LU  
(Residence), LU (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

PIRIM Patrick, 32, rue du Javelot, F-75013 Paris, FR, FR (Residence),  
FR (Nationality), (Designated only for: US)

Legal Representative:

CATHERINE Alain (et al) (agent), Cabinet HARLE et PHELIP, 7, rue de  
Madrid, F-75008 Paris, FR,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200466590 A2-A3 20040805 (WO 0466590)

Application: WO 2004FR50005 20040107 (PCT/WO FR04050005)

Priority Application: FR 2003165 20030108

Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO  
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G08B-013/196

International Patent Class: H04M-001/725; H04N-007/16

Publication Language: French

Filing Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 9740

English Abstract

The invention concerns a device for remote video surveillance by portable telephone (1, 110), the telephone comprising a transmitter (2) and a receiver (4) under the control of a control member (8) for connection to a telephone network (120), the telephone being capable of receiving and transmitting audio signals (BFm) and video signals (Vc) respectively from a microphone (3) producing the audio signals (BFm) and a camera (6) producing the video signals (Vc) of video images (Ve) and of receiving and restoring audio signals (BFe) and video signals (Ve) respectively to a sound reproduction means (5) and a video reproduction screen (7), the

telephone including a user input interface (9) and a self-contained power supply source (10). The invention is characterized in that the telephone further comprises a module (20) for analyzing and diagnosing at least video images, an input of said module (20) being connected in output of the camera (6) and receiving the video signals (Vc), the module being connected at least in output to the control member (8) for sending at least one diagnosis data (D) to said control member (8) based on the analysis and the diagnosis of the video signal by a computing module (23, 20') programmed (25) with an applicative programme of said module, the diagnosis data (D) being instructions acting on the control member. The invention also concerns a remote surveillance operating method and application.

#### French Abstract

L'invention concerne un dispositif de telesurveillance video par telephone portable (1, 110), le telephone comportant un emetteur (2) et un recepteur (4) sous le controle d'un organe de controle (8) pour connexion a un reseau telephonique (120), le telephone pouvant, d'une part, capter et transmettre des signaux sonores BFM et des signaux video Vc provenant respectivement d'un micro (3) produisant les signaux sonores BFM et d'une camera (6) produisant les signaux video Vc d'images video et, d'autre part, recevoir et restituer des signaux sonores BFe et des signaux video Ve a destination de respectivement un moyen de restitution sonore (5) et d'un ecran de restitution video (7), le telephone comportant une interface d'entree utilisateur (9) et une source d'alimentation (10) autonome. Selon l'invention, le telephone comporte en outre un module (20) d'analyse et de diagnostic d'au moins des images video, une entree dudit module (20) etant reliee en sortie de la camera (6) et recevant les signaux video Vc, le module etant relie au moins en sortie a l'organe de controle (8) pour envoi d'au moins une donnee de diagnostic D audit organe de controle (8) en fonction de l'analyse et du diagnostic du signal video par un moyen de calcul (23, 20') programme (25) par un programme applicatif dudit module, les donnees de diagnostic D etant des instructions agissant sur l'organe de controle. L'invention concerne egalement un procede d'exploitation et une application de telesurveillance.

#### Legal Status (Type, Date, Text)

Publication 20040805 A2 Without international search report and to be republished upon receipt of that report.  
Search Rpt 20040916 Late publication of international search report  
Republication 20040916 A3 With international search report.  
Republication 20040916 A3 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

1/5/14 (Item 2 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
(c) 2004 WIPO/Univentio. All rts. reserv.

01092702 \*\*Image available\*\*

**ACTIVE VISUAL PERCEPTION METHOD AND DEVICE FOR CHARACTERISATION AND RECOGNITION THROUGH THE ANALYSIS OF MONO/MULTIDIMENSIONAL PARAMETERS IN MULTICLASS COMPUTING UNITS AND HISTOGRAM PROCESSING, DYNAMIC UNIT RECRUITMENT**

**PROCEDE ET DISPOSITIF DE PERCEPTION VISUELLE ACTIVE POUR CARACTERISATION ET RECONNAISSANCE PAR ANALYSE DE PARAMETRES MONO/MULTIDIMENSIONNELS DANS DES UNITES MULTICLASSES DE CALCUL ET TRAITEMENT D'HISTOGRAMME, RECRUTEMENT DYNAMIQUE D'UNITES**

Patent Applicant/Assignee:

HOLDING B E V SA, 180 rue des Aubepines, 2953 Luxembourg, LU, LU  
(Residence), LU (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

PIRIM Patrick, 32, rue du Javelot, F-75013 Paris, FR, FR (Residence),  
FR (Nationality), (Designated only for: US)

Legal Representative:

CATHERINE Alain (et al) (agent), Cabinet HARLE et PHELIP, 7 rue de  
Madrid, F-75008 PARIS, FR,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200415630 A2-A3 20040219 (WO 0415630)  
Application: WO 2003FR2478 20030806 (PCT/WO FR03002478)  
Priority Application: FR 200210064 20020807; FR 200210065 20020807; FR  
200210066 20020807; FR 200210067 20020807

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD  
SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06T-007/00

Publication Language: French

Filing Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 75112

English Abstract

The invention relates to an active visual perception device and method  
employing spatial resolution variation in order to characterise and  
recognise an object, particularly for identification and position-finding  
purposes. The object is represented as a series of sequences and  
sub-sequences of a digital signal. The inventive method consists in  
performing the following steps over a period of several sequences: a  
Gaussian time variation in relation to the spatial resolution of the  
object in said signal, the variation comprising a phase whereby the  
resolution is increased from a reduced value to an optimum base value;  
differentiation with smoothing during the variation in order to obtain a  
signal that is representative of the variability of the difference of  
Gaussians when a threshold is exceeded; and deducing therefrom  
prioritised details that can be represented in the form of a parse tree  
of the object. The aforementioned variation can be produced mechanically  
or by means of electronic filtering. The invention also relates to  
multiclass mono- and multidimensional histogram processing and computing  
modules that can be dynamically recruited.

French Abstract

La presente invention concerne un procede et un dispositif de perception  
visuelle active par variation de resolution spatiale pour caracteriser et  
reconnaitre un objet, notamment aux fins d'identification et de  
localisation. L'objet est represente sous forme d'une succession de  
sequences et sous-sequences d'un signal numerique et le procede consiste  
a realiser pendant une periode de plusieurs sequences, une variation  
temporelle gaussienne de la resolution spatiale de l'objet dans ledit  
signal, la variation comportant une phase d'augmentation de la resolution  
depuis une valeur reduite jusqu'a une valeur de base optimale, une  
differentiation avec lissage pendant la variation, afin d'obtenir un  
signal representatif de la variabilite de la difference de gaussiennes  
lors du depassement d'un seuil, et a en deduire des details hierarchises  
pouvant etre representes sous forme d'un arbre d'analyse de l'objet. La  
variation peut etre obtenue mecaniquement ou par filtrage electronique.  
L'invention concerne egalement des modules de calcul et traitement  
d'histogramme mono et multidimensionnels, multiclassés et pouvant etre  
recrutes dynamiquement.

Legal Status (Type, Date, Text)

Publication 20040219 A2 Without international search report and to be  
republished upon receipt of that report.

1/5/15 (Item 3 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
(c) 2004 WIPO/Univentio. All rts. reserv.

00984883 \*\*Image available\*\*

**PROCESSING DEVICE AND METHOD FOR AN AUTOMATIC PERCEPTION SYSTEM**  
**DISPOSITIF ET PROCEDE DE TRAITEMENT POUR SYSTEME DE PERCEPTION AUTOMATIQUE**  
Patent Applicant/Assignee:

HOLDING B E V S A, 69, route d'Esch, L-2953 Luxembourg, LU, LU  
(Residence); LU (Nationality); (For all designated states except: US)  
Patent Applicant/Inventor:

**PIRIM Patrick**, 56, rue de Patay, F-75013 Paris, FR, FR (Residence), FR  
(Nationality), (Designated only for: US)

Legal Representative:

CATHERINE Alain (et al) (agent), Cabinet Harle et Phelip, 7, rue de  
Madrid, F-75008 Paris, FR,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200315029 A2-A3 20030220 (WO 0315029)

Application: WO 2002FR2849 20020809 (PCT/WO FR0202849)

Priority Application: FR 200110750 20010810

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ

EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI

SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06T-005/00

Publication Language: French

Filing Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5838

**English Abstract**

The invention relates to a processing device for an automatic perception system that involves the use of STN calculation units (1) which receive data from a data bus (7) and which are interconnected by a backannotation bus (6). According to the invention, the units are grouped together in hierarchical sets, in which the set of the order of 0 is formed by a single unit, the set of the order of 1 is formed by the combination of several order 0 sets, the sets of the order of P greater than 1 are formed by the combination of lower P-1 order sets, the hierarchised sets of a given order P sharing a backannotation bus. The backannotation buses between a lower order P and a greater order P+1 are interconnected by means of a connection unit. The invention also relates to the method of using the device.

**French Abstract**

L'invention concerne un dispositif de traitement pour systeme de perception automatique mettant en oeuvre des modules (1) de calcul STN recevant des donnees d'un bus (7) de donnees et interconnectes par un bus (6) de retroannotation. Selon l'invention, les modules sont regroupes en ensembles hierarchises comprenant l'ensemble d'ordre 0 forme d'un module unique, l'ensemble d'ordre 1 forme de la reunion de plusieurs ensembles d'ordre 0, les ensembles d'ordre P superieur a 1 formes de la reunion d'ensembles d'ordre P-1 inferieur, les ensembles hierarchises d'un ordre donne P partageant un bus de retroannotation, et en ce que

l'interconnexion des bus de retroannotation entre un ordre P inferieur et un ordre P+1 superieur s'effectue par l'intermediaire d'un module d'interconnexion. Le procede met en oeuvre le dispositif.

Legal Status (Type, Date, Text)

Publication 20030220 A2 Without international search report and to be republished upon receipt of that report.

Examination 20030731 Request for preliminary examination prior to end of 19th month from priority date

Search Rpt 20031127 Late publication of international search report

Republication 20031127 A3 With international search report.

1/5/16 (Item 4 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00941594 \*\*Image available\*\*

**METHOD AND DEVICE FOR ADAPTING THE SENSITIVITY FOR DETECTING A PARAMETER CARRIED BY A SIGNAL**

**PROCEDE ET DISPOSITIF D'ADAPTION DE LA SENSIBILITE DE DETECTION D'UN PARAMETRE PORTE PAR UN SIGNAL**

Patent Applicant/Assignee:

HOLDING B E V S A, 69, route d'Esch, L-2953 Luxembourg, LU, LU  
(Residence), LU (Nationality)

Inventor(s):

**PIRIM Patrick**, 56, rue de Patay, F-75013 PARIS, FR

Legal Representative:

CATHERINE Alain (et al) (agent), Cabinet Harle et Phelip, 7 rue de Madrid, F-75008 PARIS, FR,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200275659 A1 20020926 (WO 0275659)

Application: WO 2002EP1900 20020222 (PCT/WO-EP0201900)

Priority Application: FR 20012530 20010223

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06T-007/20

International Patent Class: G06T-007/00

Publication Language: French

Filing Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 18035

English Abstract

The invention relates to a method and device for adapting a signal used to detect the movement of an object in a space. Said space is represented by a set of data A<sub>ij</sub>, which are associated with pixels that together form a multidimensional space i, j that changes over time, and represented at a sequence of moments T. Said data which are associated with parameter A are in the form of a digital DATA(A) signal comprising a series A<sub>ijT</sub> of binary numbers of n bits which are associated with synchronisation signals that can be used to define moment T of the space and position i, j in said space with which the A<sub>ijT</sub> signals received at a given instant are associated. According to the invention, the parameter A detection sensitivity gain and threshold are adapted and the sensitivity for detecting the variation of said parameter

is adapted.

#### French Abstract

La presente invention concerne un procede et un dispositif d'adaptation d'un signal utilise pour la detection d'un mouvement d'un objet dans un espace represente par un ensemble de donnees  $A_{ij}$ , associees a des pixels formant ensemble un espace  $i, j$  multidimensionnel, evoluant dans le temps, et represente a une succession de moments  $T$ , lesdites donnees associees au parametre  $A$  etant sous la forme d'un signal  $DATA(A)$  numerique compose d'une suite  $A_{ijt}$  de nombres binaires de  $n$  bits associees a des signaux de synchronisation permettant de definir le moment  $T$  de l'espace et la position  $i, j$  dans cet espace, auquel les signaux  $A_{ijt}$  recus a un instant donne sont associes, dans lequel on effectue une adaptation du seuil et du gain de sensibilite de detection du parametre  $A$ . On procede a une adaptation de la sensibilite de detection de la variation dudit parametre.

Legal Status (Type, Date, Text)

Publication 20020926 A1 With international search report.

Examination 20021219 Request for preliminary examination prior to end of 19th month from priority date

1/5/17 (Item 5 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00935076 \*\*Image available\*\*

**METHOD AND DEVICE FOR LOCATING AN OBJECT BY MEANS OF THE SHAPE, DIMENSIONS AND/OR ORIENTATION THEREOF**

**PROCEDE ET DISPOSITIF DE REPERAGE D'UN OBJET PAR SA FORME, SA DIMENSION ET/OU SON ORIENTATION**

Patent Applicant/Assignee:

HOLDING B E V S A, 69, route d'Esch, 2953 Luxembourg, LU, LU (Residence),  
LU (Nationality)

Inventor(s):

**PIRIM Patrick**, 56, rue de Patay, F-75013 Paris, FR

Legal Representative:

CATHERINE Alain (et al) (agent), Cabinet Harle et Phelip, 7, rue de  
Madrid, F-75008 Paris, FR,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200269265 A1 20020906 (WO 0269265)

Application: WO 2002EP1899 20020222 (PCT/WO EP0201899)

Priority Application: FR 20012539 20010223

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06T-007/00

International Patent Class: G06K-009/00

Publication Language: French

Filing Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 19276

#### English Abstract

The invention relates to a method and device for locating a shape in a space represented by pixels, which together form a multidimensional space



i, j that changes over time, and represented at a series of moments T. Said data, each piece of which is associated with a time parameter A, B, etc., take the form of digital DATA(A), DATA(B), etc. signals comprising a sequence A"sub"ijt, B"sub"ijt, etc. of binary numbers of n bits which are associated with synchronisation signals. As a result, the moment T of the space and the position i, j in said space can be defined, at which the A"sub"ijt, B"sub"ijt, etc. signals are received at a given moment. According to the invention, a) a region is located in the space that is of interest according to a statistical criterion which is applied to a time parameter; b) the main region thus located is inhibited; c) steps a) and b) are repeated so as to locate other regions of interest inside a non-inhibited region in the space; d) the process is stopped when one remaining non-inhibited region in the space produces no more regions of interest corresponding to said statistical criterion; e) by means of a consecutive valid frame, a counter is incremented for each region of interest thus located and when a region of interest is lost, its associated counter is reset to zero; f) for each region of interest thus located, the centroid of the scatter plot thereof is retrieved.

#### French Abstract

La presente invention concerne un procede et un dispositif de localisation d'une forme dans un espace represente par des pixels formant ensemble un espace i, j multidimensionnel, evoluant dans le temps, et represente a une succession de moments T, lesdites donnees associees a chacune a un parametre temporel A, B, ... etant sous la forme de signaux DATA(A), DATA(B), ... numeriques constitues d'une suite A"sub"ijt, B"sub"ijt, ... de nombres binaires de n bits associes a des signaux de synchronisation permettant de definir le moment T de l'espace et la position i, j dans cet espace, auquel les signaux A"sub"ijt, B"sub"ijt, ... recus a un instant donne. Selon l'invention : a) on repere une zone d'interet de l'espace en fonction d'un critere statistique applique a un parametre temporel, b) on inhibe la zone principale ainsi reperee, c) on reitere les etapes a) et b) de facon a reperer d'autres zones d'interet a l'interieur d'une zone de l'espace non inhibee, d) on arrete le processus lorsqu'une zone restante, non inhibee, de l'espace ne produit plus de zone d'interet correspondant audit critere statistique, e) on incremente par trame valide consecutive, un compteur pour chaque zone d'interet ainsi reperee, et que lors de la perte d'une zone d'interet, son compteur associe soit remis a zero, f) on recupere pour chaque zone d'interet ainsi reperee, la barycentre de son nuage de points.

Legal Status (Type, Date, Text)

Publication: 20020906 A1 With international search report.

Examination 20030904 Request for preliminary examination prior to end of 19th month from priority date

1/5/18 (Item 6 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00829971 \*\*Image available\*\*

#### AUTOMATIC PERCEPTION METHOD AND DEVICE

#### PROCEDE ET DISPOSITIF DE PERCEPTION AUTOMATIQUE

Patent Applicant/Assignee:

HOLDING B E V S A, 69, route d'Esch, 2953 Luxembourg, LU, LU (Residence), LU (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

PIRIM Patrick, 56, rue Patay, F-75013 Paris, FR, FR (Residence), FR (Nationality), (Designated only for: US)

Legal Representative:

MICHELET Alain (et al) (agent), Cabinet Harle & Phelip, 7 rue de Madrid, F-75008 Paris, FR,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200163557 A2-A3 20010830 (WO 0163557)

Application: WO 2001FR546 20010223 (PCT/WO FR0100546)

Priority Application: FR 20002355 20000224

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06T-005/00

Publication Language: French

Filing Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 15308

English Abstract

The invention concerns a method and a device for the automatic perception of an event. Said device comprises a control unit, a data bus, a back-annotation bus and at least a histogram computing unit.

French Abstract

L'invention concerne un procede et un dispositif de perception automatique d'un evenement. Ce dispositif comporte une unite de controle, un bus de donnees, un bus de retroannotation et au moins une unite de calcul d'histogramme.

Legal Status (Type, Date, Text)

Publication 20010830 A2 Without international search report and to be republished upon receipt of that report.

Examination 20020110 Request for preliminary examination prior to end of 19th month from priority date

Search Rpt 20020404 Late publication of international search report

Republication 20020404 A3 With international search report.

1/5/19 (Item 7 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00550047 \*\*Image available\*\*

**COMPRESSION AND DECOMPRESSION SYSTEM FOR DIGITAL VIDEO SIGNALS**

**SYSTEME DE COMPRESSION ET DE DECOMPRESSION POUR DES SIGNAUX VIDEO NUMERIQUES**

Patent Applicant/Assignee:

HOLDING B E V SA,

PIRIM Patrick,

Inventor(s):

**PIRIM Patrick**

Patent and Priority Information (Country, Number, Date):

Patent: WO 200013420 A2 20000309 (WO 0013420)

Application: WO 99EP6288 19990826 (PCT/WO EP9906288)

Priority Application: FR 9810837 19980828; FR 9816679 19981230

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH  
GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN  
MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US VZ VN YU  
ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH  
CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW  
ML MR NE SN TD TG

Main International Patent Class: H04N-007/26

International Patent Class: H04N-007/50; H04N-007/36

Publication Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 49053

#### English Abstract

For the compression, preferably between a preliminary encoding, such as an encoding by a wavelet filter (11) and a compression in a compression-decompression assembly (13), as used in the system MPEG, there is a displacement encoding GVPP stage (12A) which generates, at the beginning of each sequence a frame of the video signal received and then, for each pixel, correction digital signals indicating a displacement for this pixel, with the quantified amplitude and oriented direction of the displacement, or a non-displacement, until global modification of the pixels marking the beginning of a new sequence and, for the decompression, preferably between a decompression in a compression-decompression assembly (13), of the type mentioned above, and a final decoding, such as performed in a reverse-operating wavelet filter (11), a displacement decoding assembly (12B), which, from a signal compressed by the compression mentioned above, transmits the frames of the beginning of each sequence and then replaces in position the pixels whose displacement is indicated by correction signals, while leaving in position the other pixels.

#### French Abstract

Pour la compression, de preference, entre un codage preliminaire tel qu'un codage par un filtre a ondelettes (11) et une compression dans un ensemble de compression-decompression (13) tel qu'utilise dans le systeme MPEG, une etape GVPP de codage de deplacement (12A) est prevue. Cette etape genere, au debut de chaque sequence, une trame du signal video recu. Ensuite, pour chaque element d'image, elle genere des signaux numeriques de correction indiquant un deplacement pour cet element d'image, dont l'amplitude quantifiee et la direction orientee sont precisees, ou un non deplacement de cet element jusqu'a la modification globale des elements d'images correspondant au debut d'une nouvelle sequence. De preference, pour la decompression entre une decompression dans un ensemble de compression-decompression (13) du type susmentionne, et un decodage final, comme celui effectue dans un filtre a ondelettes a fonctionnement inverse (11), un ensemble de decodage de deplacement (12B) a partir d'un signal compressé par la compression susmentionnee, transmet les trames du debut de chaque sequence et remplace ensuite en position les elements d'images dont le deplacement est indique par des signaux de correction, tout en laissant en place les autres elements d'images.

1/5/20 (Item 8 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00548237 \*\*Image available\*\*

#### IMAGE PROCESSING APPARATUS AND METHOD

#### APPAREIL ET PROCEDE POUR LE TRAITEMENT D'IMAGES

Patent Applicant/Assignee:

HOLDING BEV S A,

PIRIM Patrick,

Inventor(s):

PIRIM Patrick

Patent and Priority Information (Country, Number, Date):

Patent: WO 200011610 A1 20000302 (WO 0011610)

Application: WO 98EP5383 19980825 (PCT/WO EP9805383)

Priority Application: WO 98EP5383 19980825

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM

HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH  
GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES  
FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN  
TD TG

Main International Patent Class: G06T-007/20

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 21154

#### English Abstract

A method and apparatus for localizing an area in relative movement and for determining the speed and direction thereof in real time is disclosed. Each pixel of an image is smoothed using its own time constant. A binary value corresponding to the existence of a significant variation in the amplitude of the smoothed pixel from the prior frame, and the amplitude of the variation, are determined, and the time constant for the pixel is updated. For each particular pixel, two matrices are formed that include a subset of the pixels spatially related to the particular pixel. The first matrix contains the binary values of the subset of pixels. The second matrix contains the amplitude of the variation of the subset of pixels. In the first matrix, it is determined whether the pixels along an oriented direction relative to the particular pixel have binary values representative of significant variation, and, for such pixels, it is determined in the second matrix whether the amplitude of these pixels varies in a known manner indicating movement in the oriented direction. In each of several domains, histogram of the values in the first and second matrices falling in such domain is formed. Using the histograms, it is determined whether there is an area having the characteristics of the particular domain. The domains include luminance, hue, saturation, speed (V), oriented direction (D1), time constant (CO), first axis (x(m)), and second axis (y(m)).

#### French Abstract

L'invention concerne un procede et un appareil pour la localisation d'une zone en deplacement relatif et pour la determination de la vitesse et de la direction de celui-ci en temps reel. Chaque pixel d'une image est lisse au moyen de sa propre constante de temps. Une valeur binaire correspondant a l'existence d'une variation significative dans l'amplitude du pixel lisse a partir de la trame anterieure, et l'amplitude de la variation sont determinees, et la constante de temps pour le pixel est mise a jour. Pour chaque pixel individuel, on forme deux matrices qui comprennent un sous-ensemble de pixels relie dans l'espace au pixel individuel. La premiere matrice contient les valeurs binaires du sous-ensemble de pixels. La seconde matrice contient l'amplitude de la variation du sous-ensemble de pixels. Dans la premiere matrice, on determine si les pixels le long d'une direction orientee par rapport au pixel individuel ont des valeurs binaires representatives d'une variation significative et, pour de tels pixels, on determine, dans la seconde matrice, si l'amplitude de ces pixels varie de facon connue, indiquant un deplacement dans la direction orientee. Dans chacun des differents domaines, on forme un histogramme des valeurs dans la premiere et la seconde matrices correspondant a un tel domaine. Au moyen des histogrammes, on determine s'il existe une zone ayant les caracteristiques du domaine particulier. Les domaines comprennent la luminance, la teinte, la saturation, la vitesse (V), la direction orientee (D1), la constante de temps (CO), le premier axe (x(m)) et le second axe (y(m)).

1/5/21 (Item 9 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00548236 \*\*Image available\*\*

**IMAGE PROCESSING APPARATUS AND METHOD**  
**APPAREIL ET PROCEDURE POUR LE TRAITEMENT D'IMAGES**

Patent Applicant/Assignee:

HOLDING B E V S A,  
PIRIM Patrick,  
BINFORD Thomas,

Inventor(s):

**PIRIM Patrick** ,  
BINFORD Thomas

Patent and Priority Information (Country, Number, Date):

Patent: WO 200011609 A1 20000302 (WO 0011609)  
Application: WO 99EP425 19990125 (PCT/WO EP9900425)  
Priority Application: WO 98EP5383 19980825

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH  
GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN  
MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU  
ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE  
DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR  
NE SN TD TG

Main International Patent Class: G06T-007/00

International Patent Class: G06K-009/46

Publication Language: English

Fulltext Availability:

Detailed Description  
Claims

Fulltext Word Count: 25292

**English Abstract**

In a process for identifying the orientation of a line in an image, a histogram is formed of pixels of the line projected onto an axis. The axis is rotated and a histogram is formed of the pixels projected onto the rotated axis until the histogram includes characteristics indicating that the line is most closely perpendicular to the rotated axis. In a process of detecting a line on a road, an image is acquired of the road, and pixels of the image having characteristics corresponding to characteristics of the line are selected. A histogram is formed of the selected pixels projected onto an axis. The axis is rotated and a histogram formed of the selected pixels projected onto the rotated axis until the histogram includes characteristics indicative of a line. In a process of detecting a lane on a road having left and right side lines, pixels of the image in a first area of the image at a first orientation and pixels in a second area of the image at a second orientation in the image are selected for selecting pixels associated with the lines. Histograms are formed projected on the first and second axes, respectively, and the axes are rotated until each histogram includes characteristics of a line. Also disclosed is a process of detecting a vehicle in an adjacent lane, systems for performing the aforementioned processes, systems for identifying an object and an input signal, and an interface between an image processing system and a controller.

**French Abstract**

L'invention concerne un procede pour le traitement d'images comprenant un processus destine a identifier l'orientation d'une ligne dans une image, processus dans lequel un histogramme est forme par les pixels de la ligne projetes sur un axe. L'axe est entraine en rotation, et un histogramme est forme par les pixels projetes sur l'axe en rotation, jusqu'a ce que l'histogramme comprenne des caracteristiques indiquant que la ligne se rapproche le plus de la perpendiculaire a l'axe de rotation. Le procede comprend en outre un processus de detection d'une ligne sur une chaussee, dans lequel on obtient une image de la chaussee, et des pixels de l'image ayant des caracteristiques correspondant aux caracteristiques de la ligne sont selectionnes. Un histogramme est forme par les pixels selectionnes projetes sur un axe. L'axe est entraine en rotation et un histogramme est forme par les pixels selectionnes projetes

sur l'axe en rotation jusqu'a ce que l'histogramme comprenne les caracteristiques indicatrices d'une ligne. Le procede comprend egalement un processus de detection d'une voie sur une chaussee presentant des lignes a droite et a gauche, dans lequel des pixels de l'image dans une premiere zone de l'image a une premiere orientation et des pixels dans une seconde zone de l'image a une seconde orientation dans l'image sont selectionnes en vue de selectionner des pixels associes aux lignes. Des histogrammes sont formes, projetes, respectivement sur le premier et le second axes, et les axes sont entraînes en rotation jusqu'a ce que chaque histogramme comprenne des caracteristiques d'une ligne. L'invention concerne egalement un procede de detection d'un vehicule dans une voie adjacente, des systemes permettant de mettre en oeuvre les processus precites, des systemes permettant d'identifier un objet dans un signal d'entree, et une interface entre un systeme de traitement d'image et une unite de commande.

1/5/22 (Item 10 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
(c) 2004 WIPO/Univentio. All rts. reserv.

00505542 \*\*Image available\*\*

**METHOD AND DEVICE FOR DETECTING DROWSINESS AND PREVENTING A DRIVER OF A MOTOR VEHICLE FROM FALLING ASLEEP**

**PROCEDE ET DISPOSITIF POUR DETECTER ET PREVENIR L'ENDORMISSEMENT DU CONDUCTEUR D'UN VEHICULE AUTOMOBILE**

Patent Applicant/Assignee:

CARLUS MAGNUS LIMITED,

PIRIM Patrick,

Inventor(s):

**PIRIM Patrick**

Patent and Priority Information (Country, Number, Date):

Patent: WO 9936894 A1 19990722

Application: WO 99FR60 19990114 (PCT/WO FR9900060)

Priority Application: FR 98378 19980115

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH  
GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN  
MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU  
ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE  
DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR  
NE SN TD TG

Main International Patent Class: G08B-021/00

Publication Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 10666

**English Abstract**

The invention relates to a method and device using an optoelectronic sensor (10) in combination with an electronic unit (19), in accordance with French patent application no. 96.09420, filed on 26 July 1996 and International patent application (PCT) PCT/FR97/01354 filed on 22 July 1997, arranged inside the motor vehicle. The sensor is adjusted in line with the head of the driver sitting in said motor vehicle at the same time as the inner rear-view mirror, which comprises a one-way mirror (9) behind which the sensor (10) is positioned. After detecting the presence of a driver seated in the motor vehicle they frame first the whole face and then the eyes of the driver in the video signal raster emitted by the sensor (10) aided by the electronic unit (19) and then determine the successive durations of blinking episodes, which are compared with a limit value situated between one duration typical of an awake person and another duration typical of a drowsy person. A signal (transmitted by an alarm unit 22) suitable for waking the driver is triggered when the

duration of blinking exceeds the limit.

#### French Abstract

Le procede et le dispositif selon l'invention mettent en oeuvre un ensemble capteur optoelectronique (10) - unite electronique (19), selon la demande de brevet francais Ndegrees 96.09420 deposee le 26 juillet 1996 et la demande de brevet international (P.C.T.) PCT/FR97/01354 deposee le 22 juillet 1997, dispose a l'interieur du vehicule automobile, le capteur etant oriente vers la tete du conducteur en place dans celui-ci en meme temps que le retroviseur interieur qui comporte un miroir sans tain (9) derriere lequel est dispose le capteur (10). Ils realisent, apres detection de la presence d'un conducteur en place dans le vehicule, le cadrage d'abord du visage entier, puis des yeux, de celui-ci dans les trames du signal video debite par le capteur (10), grace a l'unite electronique (19), et ensuite la determination des durees successives des clignements des yeux, celles-ci etant comparees a un seuil compris entre une telle duree pour une personne eveillee et une telle duree pour une personne somnolente et un signal (emis par une alarme (22) apte a eveiller le conducteur etant declenche lorsque la duree de ses clignements depasse ledit seuil.

1/5/23 (Item 11 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00505541

#### METHOD AND APPARATUS FOR DETECTION OF DROWSINESS

#### PROCEDE ET APPAREIL DE DETECTION DE LA SOMNOLENCE

Patent Applicant/Assignee:

HOLDING B E V S A,

PIRIM Patrick,

BINFORD Thomas,

Inventor(s):

PIRIM Patrick ,

BINFORD Thomas

Patent and Priority Information (Country, Number, Date):

Patent: WO 9936893 A1 19990722

Application: WO 99EP300 19990115 (PCT/WO EP9900300)

Priority Application: FR 98378 19980115; WO 98EP5383 19980825

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH  
GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN  
MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU  
ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE  
DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR  
NE SN TD TG

Main International Patent Class: G08B-021/00

Publication Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 22161

#### English Abstract

In a process of detecting a person falling asleep, an image of the face of the person is acquired. Pixels of the image having characteristics corresponding to an eye of the person are selected and a histogram is formed of the selected pixels. The histogram is analyzed over time to identify each opening and closing of the eye, and characteristics indicative of the person falling asleep are determined. A sub-area of the image including the eye may be determined by identifying the head or a facial characteristic of the person, and then identifying the sub-area using an anthropomorphic model. To determine openings and closings of the eyes, histograms of shadowed pixels of the eye are analyzed to determine

the width and height of the shadowing, or histograms of movement corresponding to blinking are analyzed. An apparatus for detecting a person falling asleep includes a sensor for acquiring an image of the face of the person, a controller, and a histogram formation unit for forming a histogram on pixels having selected characteristics. Also disclosed is a rear-view mirror assembly incorporating the apparatus.

#### French Abstract

Procédé de détection d'une personne qui s'endort, selon lequel une image du visage de cette personne est prise. Des pixels de l'image ayant des caractéristiques correspondant à un œil de la personne sont sélectionnés et un histogramme est formé pour les pixels sélectionnés. L'histogramme est analysé sur la durée pour identifier chaque ouverture et fermeture de l'œil, et des caractéristiques indicatrices du fait que la personne est en train de s'endormir sont déterminées. Une sous-région de l'image comprenant l'œil peut être déterminée par identification de la tête ou d'une caractéristique faciale de la personne, puis par identification de la sous-région à l'aide d'un modèle anthropomorphique. Pour déterminer les ouvertures et fermetures des yeux, des histogrammes des pixels ombres de l'œil sont analysés pour déterminer la largeur et la hauteur de l'ombrage, ou des histogrammes de mouvement correspondant au clignement sont analysés. Un appareil permettant de détecter le fait qu'une personne est en train de s'endormir comporte un capteur destiné à prendre une image du visage de la personne, un dispositif de commande, et une unité de formation d'histogrammes destinée à former des histogrammes sur des pixels ayant des caractéristiques sélectionnées. Un ensemble retroviseur comportant ledit appareil est également décrit.

1/5/24 (Item 12 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
(c) 2004 WIPO/Univentio. All rts. reserv.

00414541 \*\*Image available\*\*

**METHOD AND DEVICE FOR REAL-TIME DETECTION, LOCATION AND DETERMINATION OF THE SPEED AND DIRECTION OF MOVEMENT OF AN AREA OF RELATIVE MOVEMENT IN A SCENE**

**PROCEDE ET DISPOSITIF FONCTIONNANT EN TEMPS REEL, POUR LE REPERAGE ET LA LOCALISATION D'UNE ZONE EN MOUVEMENT RELATIF DANS UNE SCENE, AINSI QUE POUR LA DETERMINATION DE LA VITESSE ET DE LA DIRECTION DU DEPLACEMENT**

Patent Applicant/Assignee:

CARLUS MAGNUS LIMITED,  
PIRIM Patrick,

Inventor(s):

**PIRIM Patrick**

Patent and Priority Information (Country, Number, Date):

Patent: WO 9805002 A1 19980205

Application: WO 97FR1354 19970722 (PCT/WO FR9701354)

Priority Application: FR 969420 19960726

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT  
RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN GH KE LS MW SD SZ UG ZW  
AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL  
PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: G06T-007/20

Publication Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 23773

#### English Abstract

A method and device for real-time detection, location and determination of the speed and direction of movement of an area of relative movement in



a scene, are disclosed. According to the method, the digital video input signal S(PI) is subjected to a time-based processing step wherein changes in the value of each pixel between one frame and the corresponding previous frame are used to generate a binary signal DP representing a significant change or the lack thereof, and a digital signal CO representing the degree of change; and to a spatial processing step wherein both signals are distributed over a matrix for a single frame passing therethrough, and the relative movement to be sensed as well as the parameters thereof are deduced from the resulting matrix distribution. For this purpose, the device comprises a time processing unit (15) combined with a memory (16) and a spatial processing unit (17) combined with a delay unit (18). Clock (20) and control (19) units are provided for clocking the operation of units (15) and (17).

#### French Abstract

L'invention a pour objet un procede et un dispositif, fonctionnant en temps reel, pour le repereage, la localisation, la determination de la vitesse et de la direction du deplacement en temps reel d'une zone en mouvement relatif dans une scene. Le procede realise un traitement temporel du signal video numerique d'entree S(PI), consistant a deduire, des variations de la valeur de chaque pixel entre une trame et la trame correspondante anterieure, un signal binaire DP de variation ou non-variation significative et un signal numerique CO representatif de l'importance de cette variation, et un traitement spatial, consistant a repartir sur une matrice par roulement ces deux signaux pour une meme trame qui defile a travers la matrice et a deduire de cette repartition matricielle le mouvement relatif recherche et ses parametres. A cet effet, le dispositif comporte une unite de traitement temporel (15) associee a une memoire (16) et une unite de traitement spatial (17) associee a une unite a retards (18); les unites d'horloge (20) et de commande (19) cadencant le fonctionnement des unites (15 et 17).

1/5/25 (Item 13 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00172575 \*\*Image available\*\*

#### PROCESS AND DEVICE FOR TRANSMITTING NUMERICAL DATA

#### PROCEDE ET DISPOSITIF DE TRANSMISSION DE DONNEES NUMERIQUES

Patent Applicant/Assignee:

MARCHAND Renaud,

BONNAVAL-LAMOTHE Michel,

SOCIETE DE RECHERCHE DEVELOPPEMENT ET APPLICATION EN MATIERE BREVETABLE  
(SRDAMB),

PIRIM Patrick,

Inventor(s):

**PIRIM Patrick**

Patent and Priority Information (Country, Number, Date):

Patent: WO 9006030 A1 19900531

Application: WO 88FR571 19881123 (PCT/WO FR8800571)

Priority Application: WO 88FR571 19881123

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AT BE CH DE DK FR GB IT JP LU MC NL SE US

Main International Patent Class: H04L-027/10

Publication Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 10237

#### English Abstract

The invention concerns a process and a device for transmitting numerical data (M) in the form of a sequence of words. The process consists, (a) in an encoding phase, in creating from the data an analog signal whose

period is composed of several fractions of the period, each one depending on a word of the data, (b) in transmitting the analog signal, and (c) in a decoding phase, which consists in dividing the signal into p fractions corresponding to the encoding fractions, and in analyzing the latter with a view to deducing the sequence of words. The process makes possible a high flow of transmission for a particular transmission band width.

#### French Abstract

L'invention concerne un procede et un dispositif de transmission de donnees numeriques (M) se presentant sous la forme d'une succession de mots. Le procede consiste, (a) dans une phase de codage, a elaborer a partir des donnees un signal analogique dont la periode est composee de plusieurs fractions de periode, chacune fonction d'un mot des donnees, (b) a transmettre ce signal analogique, et (c) dans une phase de decodage, a decouper le signal en p fractions correspondant a celles du codage, et a analyser celles-ci en vue de deduire la succession des mots. Le procede permet un debit de transmission eleve pour une bande de frequence de transmission determinee.

1/5/26 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

016362138 \*\*Image available\*\*

WPI Acc No: 2004-520045/200450

XRPX Acc No: N04-412055

**Video mobile phone for e.g. tele-surveillance to provide security of premises, has analysis and diagnosis module output to send diagnostic data to control organ according to analysis and diagnosis of video signal**

Patent Assignee: HOLDING BEV SA (HOLD-N)

Inventor: **PIRIM P**

Number of Countries: 108 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2849738	A1	20040709	FR 2003165	A	20030108	200450 B
WO 200466590	A2	20040805	WO 2004FR50005	A	20040107	200451

Priority Applications (No Type Date): FR 2003165 A 20030108

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

FR 2849738	A1		26	H04Q-007/20	
------------	----	--	----	-------------	--

WO 200466590	A2 F			H04M-000/00	
--------------	------	--	--	-------------	--

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): FR 2849738 A1

NOVELTY - The mobile phone has an analysis and diagnosis module (20) for video images and an input of the module is connected to an output of a camera (6). The modules output is connected to a control organ (8) for sending a diagnostic data to the control organ according to the analysis and diagnosis of the video signal by means of calculation programmed by an application program of the module.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a procedure for the use of video tele-surveillance by mobile phone.

USE - Used for video tele-surveillance to provide security of premises, road conditions and to climate or traffic of vehicle, for monitoring an infant, and monitoring a swimming pool.

ADVANTAGE - The mobile phone facilitates improved tele-surveillance to provide security of premises, road conditions and to climate or traffic of vehicle, for monitoring an infant, and swimming pool.

DESCRIPTION OF DRAWING(S) - The drawing shows a mobile phone with an analysis and diagnosis module.

Camera (6)

Control organ (8)

Input interface (9)

Analysis and diagnosis module (20)

Receiver (130)

pp; 26 DwgNo 2/5

Title Terms: VIDEO; MOBILE; TELEPHONE; TELE; SECURE; PREMISES; ANALYSE; DIAGNOSE; MODULE; OUTPUT; SEND; DIAGNOSE; DATA; CONTROL; ORGAN; ACCORD; ANALYSE; DIAGNOSE; VIDEO; SIGNAL

Derwent Class: W01; W02

International Patent Class (Main): H04M-000/00; H04Q-007/20

International Patent Class (Additional): H04M-011/00; H04N-007/18

File Segment: EPI

1/5/27 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

016034036 \*\*Image available\*\*

WPI Acc No: 2004-191887/200418

XRPX Acc No: N04-152237

**Visual perception method for object characterization and recognition through the analysis of mono- and multi-dimensional parameters in multi-class computing units and histogram processing**

Patent Assignee: HOLDING BEV SA (HOLD-N)

Inventor: PIRIM P

Number of Countries: 105 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200415630	A2	20040219	WO 2003FR2478	A	20030806	200418 B
FR 2843467	A1	20040213	FR 200210064	A	20020807	200418
FR 2843469	A1	20040213	FR 200210065	A	20020807	200418
FR 2843470	A1	20040213	FR 200210066	A	20020807	200418
FR 2843471	A1	20040213	FR 200210067	A	20020807	200418
AU 2003282816	A1	20040225	AU 2003282816	A	20030806	200456

Priority Applications (No Type Date): FR 200210067 A 20020807; FR 200210064 A 20020807; FR 200210065 A 20020807; FR 200210066 A 20020807

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200415630 A2 F 285 G06T-007/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

FR 2843467 A1 G06F-017/00

FR 2843469 A1 G06T-007/00

FR 2843470 A1 G06T-007/00

FR 2843471 A1 G06T-007/00

AU 2003282816 A1 G06T-007/60 Based on patent WO 200415630

Abstract (Basic): WO 200415630 A2

NOVELTY - Method for perceiving an object in space using spatial resolution variation to characterize and recognize an object. Accordingly the object is represented as a series of sequences and sub-sequences of a digital signal and the inventive method is repeated a number of times. The method involves formation of a Gaussian time variation in relation to the object spatial resolution within the signal, followed by filtering and parsing to obtain prioritized details.

DETAILED DESCRIPTION - The invention also relates to a corresponding active visual perception device, and multiclass mono- and multi-dimensional histogram processing and computer modules that can be dynamically recruited.

USE - Visual perception method for object characterization and recognition.

DESCRIPTION OF DRAWING(S) - The figure shows a part of an inventive device for object perception and recognition.

pp; 285 DwgNo 51/62

Title Terms: VISUAL; PERCEPTION; METHOD; OBJECT; CHARACTERISTIC; RECOGNISE; THROUGH; ANALYSE; MONO; MULTI; DIMENSION; PARAMETER; MULTI; CLASS; COMPUTATION; UNIT; HISTOGRAM; PROCESS

Derwent Class: T01; T04

International Patent Class (Main): G06F-017/00; G06T-007/00; G06T-007/60

International Patent Class (Additional): G06F-017/30; G06K-009/46;

H04N-007/26

File Segment: EPI

1/5/28 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015398028 \*\*Image available\*\*

WPI Acc No: 2003-460168/200344

XRPX Acc No: N03-366083

**Automatic image perception processing having regrouped hierarchical module calculations regrouping bus digital words having order levels grouping successive module sets and retroannotation between levels interconnection module effected.**

Patent Assignee: HOLDING BEV SA (HOLD-N)

Inventor: PIRIM P

Number of Countries: 102 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2828613	A1	20030214	FR 200110750	A	20010810	200344 B
WO 200315029	A2	20030220	WO 2002FR2849	A	20020809	200344
EP 1419482	A2	20040519	EP 2002772498	A	20020809	200433
			WO 2002FR2849	A	20020809	
AU 2002337264	A1	20030224	AU 2002337264	A	20020809	200460

Priority Applications (No Type Date): FR 200110750 A 20010810

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

FR 2828613 A1 25 H04N-007/32

WO 200315029 A2 F G06T-005/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

EP 1419482 A2 F G06T-005/00 Based on patent WO 200315029

Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

AU 2002337264 A1 G06T-005/00 Based on patent WO 200315029

Abstract (Basic): FR 2828613 A1

NOVELTY - The automatic image perception mechanism has module calculations receiving digital words from a bus. The modules are regrouped in hierachical assemblies with single module zero order assembly, order 1 modules collecting several assemblies and so on. The modules provide a retroannotation bus, with retroannotation between levels effected by an interconnection module following an interconnection configuration function of selected parameters.

USE - Image processing allowing extraction of contents with certain

criteria.

ADVANTAGE - The image processing mechanism provides an output signal carrying to each pixel significant information of results of the application of the criterias of search or selection, providing improved automatic perception with a more flexible response.

DESCRIPTION OF DRAWING(S) - The figure shows a representation of a hierarchical application

pp; 25 DwgNo 4/9

Title Terms: AUTOMATIC; IMAGE; PERCEPTION; PROCESS; HIERARCHY; MODULE; CALCULATE; REGROUPING; BUS; DIGITAL; WORD; ORDER; LEVEL; GROUP; SUCCESSION; MODULE; SET; LEVEL; INTERCONNECT; MODULE; EFFECT

Derwent Class: T01; T04

International Patent Class (Main): G06T-005/00; H04N-007/32

International Patent Class (Additional): G06T-007/20

File Segment: EPI

1/5/29 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014891902 ... \*\*Image available\*\*

WPI Acc No: 2002-712608/200277

Related WPI Acc No: 2001-530014; 2002-638075

XRPX Acc No: N02-562137

Human face shape localization method for image processing, involves identifying main and sub regions of interest in space represented by pixel data, and storing center of gravity of each identified region

Patent Assignee: HOLDING BEV SA (HOLD-N); PIRIM P (PIRI-I)

Inventor: PIRIM P

Number of Countries: 101 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020120594	A1	20020829	US 2001792436	A	20010223	200277 B
			US 2001876929	A	20010608	
FR 2821459	A1	20020830	FR 20012539	A	20010223	200277
WO 200269265	A1	20020906	WO 2002EP1899	A	20020222	200277
EP 1364341	A1	20031126	EP 2002716806	A	20020222	200380
			WO 2002EP1899	A	20020222	
AU 2002247740	A1	20020912	AU 2002247740	A	20020222	200433
JP 2004523047	W	20040729	JP 2002568307	A	20020222	200452
			WO 2002EP1899	A	20020222	

Priority Applications (No Type Date): FR 20012539 A 20010223

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20020120594 A1 62 G06F-015/18 CIP of application US 2001792436

FR 2821459 A1 G06F-017/50

WO 200269265 A1 F G06T-007/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

EP 1364341 A1 F G06T-007/00 Based on patent WO 200269265

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

AU 2002247740 A1 G06T-007/00 Based on patent WO 200269265

JP 2004523047 W 164 G06T-007/00 Based on patent WO 200269265

Abstract (Basic): US 20020120594 A1

NOVELTY - A shape of human face is localized in a space represented by a pixel data corresponding to temporal parameter such as color, luminance. A main region of interest and other regions in space are identified, based on a statistic criterion provided to the parameters.

A counter (107) is incremented for each consecutive valid frame for each identified region, and center of gravity of each identified region is stored.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for shape processing device.

USE - For image processing, for determining outline of moving object such as eyes, mouth, with respect to stable background.

ADVANTAGE - Provides automatic extraction of the characteristics of the object reliably.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of the self-adapting histogram calculation unit.

Counter (107)

pp; 62 DwgNo 4/54

Title Terms: HUMAN; FACE; SHAPE; LOCALISE; METHOD; IMAGE; PROCESS; IDENTIFY ; MAIN; SUB; REGION; INTEREST; SPACE; REPRESENT; PIXEL; DATA; STORAGE;

GRAVITY; IDENTIFY; REGION

Derwent Class: T01; T04

International Patent Class (Main): G06F-015/18; G06F-017/50; G06T-007/00

International Patent Class (Additional): G06K-009/00; G06T-001/00;

G06T-007/20; G06T-007/60; H04N-007/26

File Segment: EPI

1/5/30 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014876546 \*\*Image available\*\*

WPI Acc No: 2002-697252/200275

Related WPI Acc No: 1998-123089; 1999-493893; 1999-574009; 2000-224826; 2000-256429

XRPX Acc No: N02-549723

**Object tracking method for military and covert application, involves identifying pixels of successive frames based on user selected criteria and classification domain of pixels to form histogram**

Patent Assignee: PIRIM P (PIRI-I)

Inventor: PIRIM P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20020071595	A1	20020613	WO 98EP5383	A	19980825	200275	B
			US 99230502	A	19990913		
			US 2001792294	A	20010223		

Priority Applications (No Type Date): US 2001792294 A 20010223; WO 98EP5383 A 19980825; US 99230502 A 19990913

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020071595	A1	33		G06K-009/00	CIP of application WO 98EP5383 CIP of application US 99230502

Abstract (Basic): US 20020071595 A1

NOVELTY - A validation signal is provided to select domains such as luminance, speed, oriented direction, time constant, hue, saturation, for pixels of an input signal. A classification criteria is set by user for the pixels. The pixels of successive frames are identified and analyzed based on validation signal and criteria to form histograms.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for object tracking apparatus.

USE - For identifying and localizing relative movement of object such as person, weapon in a scene obtained from video camera, ultrasound and IR sensors, radar, tactile array in covert and military applications and also for tracking moving target on ground by helicopter tracking performance of artist in a stage during exhibition.

ADVANTAGE - Generates real-time histograms for pixels by receiving criteria input from the user, thereby analyzing motion of objects in

real-time environments.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram illustrating the inter-relationship between various histogram formation units.

pp; 33 DwgNo 11/24

Title Terms: OBJECT; TRACK; METHOD; MILITARY; COVERT; APPLY; IDENTIFY; PIXEL; SUCCESSION; FRAME; BASED; USER; SELECT; CRITERIA; CLASSIFY; DOMAIN; PIXEL; FORM; HISTOGRAM

Derwent Class: T01; T04; W07

International Patent Class (Main): G06K-009/00

File Segment: EPI

1/5/31 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014817369 \*\*Image available\*\*

WPI Acc No: 2002-638075/200269

Related WPI Acc No: 2001-530014; 2002-712608

XRPX Acc No: N02-504112

**Detection sensitivity adjustment procedure calculates histogram for motion detection against threshold**

Patent Assignee: HOLDING BEV SA (HOLD-N)

Inventor: PIRIM P

Number of Countries: 101 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2821464	A1	20020830	FR 20012530	A	20010223	200269 B
US 20020156753	A1	20021024	US 2001792436	A	20010223	200273
			US 2001877337	A	20010608	
WO 200275659	A1	20020926	WO 2002EP1900	A	20020222	200273
EP 1364342	A1	20031126	EP 2002700266	A	20020222	200380
			WO 2002EP1900	A	20020222	
AU 2002233356	A1	20021003	AU 2002233356	A	20020222	200432
JP 2004529423	W	20040924	JP 2002574593	A	20020222	200463
			WO 2002EP1900	A	20020222	

Priority Applications (No Type Date): FR 20012530 A 20010223

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

FR 2821464	A1		87	G06T-007/00	
------------	----	--	----	-------------	--

US 20020156753	A1			G06F-015/18	CIP of application US 2001792436
----------------	----	--	--	-------------	----------------------------------

WO 200275659	A1	F		G06T-007/20	
--------------	----	---	--	-------------	--

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

EP 1364342	A1	F		G06T-007/20	Based on patent WO 200275659.
------------	----	---	--	-------------	-------------------------------

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

AU 2002233356	A1			G06T-007/20	Based on patent WO 200275659
---------------	----	--	--	-------------	------------------------------

JP 2004529423	W		153	G06T-007/20	Based on patent WO 200275659
---------------	---	--	-----	-------------	------------------------------

Abstract (Basic): FR 2821464 A1

NOVELTY - A detection sensitivity adjustment procedure to ensure correct normalization varies the gain and offset for detection of pixel data by comparison with a sliding value derived from preceding data with time constant (CO) and thresholds (SOo-3) selected by the demultiplexer (11) for a calculated (103) data histogram.

USE - Image processing for motion recognition.

ADVANTAGE - Allows processing of images to detect motion. Also useful for voice detection.

DESCRIPTION OF DRAWING(S) - The drawing is a block diagram of the processor.

Histogram calculation unit (103)

Time constant (CO)

Thresholds (SOO-3)

pp; 87 DwgNo 3/5

Title Terms: DETECT; SENSITIVE; ADJUST; PROCEDURE; CALCULATE; HISTOGRAM;  
MOTION; DETECT; THRESHOLD

Derwent Class: T01; W04

International Patent Class (Main): G06F-015/18; G06T-007/00; G06T-007/20

International Patent Class (Additional): H04N-007/32

File Segment: EPI

1/5/32 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014045801 \*\*Image available\*\*

WPI Acc No: 2001-530014/200158

Related WPI Acc No: 2002-638075; 2002-712608

XRPX Acc No: N01-393381

**Digital image processing circuit includes matrix of histogram processors  
for detection of change in digital video signal**

Patent Assignee: HOLDING BEV SA (HOLD-N); PIRIM P (PIRI-I)

Inventor: PIRIM P

Number of Countries: 095 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200163557	A2	20010830	WO 2001FR546	A	20010223	200158 B
FR 2805629	A1	20010831	FR 20002355	A	20000224	200159
AU 200137493	A	20010903	AU 200137493	A	20010223	200202
US 20020169732	A1	20021114	US 2001792436	A	20010223	200277
EP 1259939	A2	20021127	EP 2001909896	A	20010223	200302
			WO 2001FR546	A	20010223	
US 20030152267	A1	20030814	WO 2001FR546	A	20010223	200355
			US 2003204825	A	20030210	
EP 1259939	B1	20040506	EP 2001909896	A	20010223	200430
			WO 2001FR546	A	20010223	
DE 60103131	E	20040609	DE 103131	A	20010223	200438
			EP 2001909896	A	20010223	
			WO 2001FR546	A	20010223	
JP 2004526214	W	20040826	JP 2001562445	A	20010223	200456
			WO 2001FR546	A	20010223	

Priority Applications (No Type Date): FR 20002355 A 20000224

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200163557 A2 F 82 G06T-005/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

FR 2805629 A1 G06F-017/50

AU 200137493 A G06T-005/00 Based on patent WO 200163557

US 20020169732 A1 G06N-005/00

EP 1259939 A2 F G06T-005/00 Based on patent WO 200163557

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

US 20030152267 A1 G06K-009/00

EP 1259939 B1 F G06T-005/00 Based on patent WO 200163557

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE TR

DE 60103131 E G06T-005/00 Based on patent EP 1259939

Based on patent WO 200163557

JP 2004526214 W 124 G06T-001/20 Based on patent WO 200163557



Abstract (Basic): WO 200163557 A2

NOVELTY - The system enables uses a matrix of processors monitoring different parameters in order to detect specific image characteristics.

DETAILED DESCRIPTION - The automatic perception system detecting an event w.r.t. at least one parameter comprises a control unit (513), a data bus (510) and a back-annotation bus with at least one histogram processor for processing this parameter. For processing several parameters several histogram processors are organised in a matrix. The histogram processors process the data (aijt) associated with the pixels forming a multidimensional space (i,j) evolving in time. The processors co-operate with an analysis memory, a classifier and a back-annotation unit receiving the output from the classifier. The classifier operates according to a selection criteria in order to monitor changing data values applied in the digital input signal.

USE - Analysis of changing digital video images.

ADVANTAGE - Enables detection of specific elements, with learning and anticipation of change.

DESCRIPTION OF DRAWING(S) - The diagram shows the histogram processing circuits and memory.

pp; 82 DwgNo 33/40

Title Terms: DIGITAL; IMAGE; PROCESS; CIRCUIT; MATRIX; HISTOGRAM; PROCESSOR ; DETECT; CHANGE; DIGITAL; VIDEO; SIGNAL

Derwent Class: T01

International Patent Class (Main): G06F-017/50; G06K-009/00; G06N-005/00; G06T-001/20; G06T-005/00

International Patent Class (Additional): G06F-017/00; G06T-001/00; G06T-001/40; G06T-005/40; G06T-007/00

File Segment: EPI

1/5/33 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

013084557 \*\*Image available\*\*

WPI Acc No: 2000-256429/200022

Related WPI Acc No: 1999-493893; 2000-224826; 2002-697252

XRPX Acc No: N00-190687

**Image processing system with an interface to a controller and using generic image processing system to detect lines, lanes and vehicles on a road**

Patent Assignee: BINFORD T (BINF-I); HOLDING BEV SA (HOLD-N); PIRIM P (PIRI-I)

Inventor: BINFORD T; PIRIM P

Number of Countries: 085 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200011609	A1	20000302	WO 99EP425	A	19990125	200022 B
AU 9924242	A	20000314	AU 9924242	A	19990125	200031
EP 1105840	A1	20010613	EP 99903674	A	19990125	200134
			WO 99EP425	A	19990125	
EP 1105840	B1	20021120	EP 99903674	A	19990125	200277
			WO 99EP425	A	19990125	
ES 2188130	T3	20030616	EP 99903674	A	19990125	200345
JP 2003521752	W	20030715	WO 99EP425	A	19990125	200347
			JP 2000566791	A	19990125	

Priority Applications (No Type Date): WO 98EP5383 A 19980825

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200011609 A1 E 81 G06T-007/00

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9924242 A Based on patent WO 200011609  
 EP 1105840 A1 E G06T-007/00 Based on patent WO 200011609  
 Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
 LU MC NL PT SE  
 EP 1105840 B1 E G06T-007/00 Based on patent WO 200011609  
 Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
 LU MC NL PT SE  
 ES 2188130 T3 G06T-007/00 Based on patent EP 1105840  
 JP 2003521752 W 90 G06T-007/60 Based on patent WO 200011609  
 Abstract (Basic): WO 200011609 A1

NOVELTY - A generic image processing system includes a spatial and temporal processing unit (11) receiving a digital video signal at its input (12) from a video camera (13) monitoring a scene (13a). The signal is preferably composed of a succession of pairs of interlaced frames and outputs (ZH,SR) from the processing unit are preferably digital signals and are passed to a monitor (10) and to a separate processing assembly (10a). The formed histograms on two axes are rotated until they include characters of a road line or object.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for processes for detecting and identifying orientation of a line, for a vehicle detecting process, for apparatus for detecting and identifying line orientation, for detecting a vehicle and for identifying an object in an input signal and for an interface.

USE - Determining orientation of a line, detecting road lines and lanes and detecting vehicles on a road.

DESCRIPTION OF DRAWING(S) - The drawing is a diagrammatic illustration of the system according to the invention

Spatial and temporal processing unit (11)

Video camera (13)

Scene (13a)

Monitor (10)

Separate processing system (10a)

pp; 81 DwgNo 1/25

Title Terms: IMAGE; PROCESS; SYSTEM; INTERFACE; CONTROL; IMAGE; PROCESS; SYSTEM; DETECT; LINE; LANE; VEHICLE; ROAD

Derwent Class: T01; T04; T07

International Patent Class (Main): G06T-007/00; G06T-007/60

International Patent Class (Additional): G06K-009/46; G06T-001/00; G08G-001/16

File Segment: EPI

1/5/34 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

013074961 \*\*Image available\*\*

WPI Acc No: 2000-246833/200021

XRPX Acc No: N00-184569

# Compression and decompression process for digital video signal

Patent Assignee: HOLDING BEV SA (HOLD-N)

Inventor: PIRIM P

Number of Countries: 086 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200013420	A2	20000309	WO 99EP6288	A	19990826	200021 B
FR 2782876	A1	20000303	FR 9810837	A	19980828	200021
FR 2782878	A1	20000303	FR 9816679	A	19981230	200021
AU 9957417	A	20000321	AU 9957417	A	19990826	200031
EP 1110408	A2	20010627	EP 99944529	A	19990826	200137
			WO 99EP6288	A	19990826	
EP 1110408	B1	20030514	EP 99944529	A	19990826	200333
			WO 99EP6288	A	19990826	
DE 69907929	E	20030618	DE 607929	A	19990826	200348
			EP 99944529	A	19990826	
			WO 99EP6288	A	19990826	
JP 2003535486	W	20031125	WO 99EP6288	A	19990826	200380

JP 2000568260 A 19990826  
ES 2198954 T3 20040201 EP 99944529 A 19990826 200414

Priority Applications (No Type Date): FR 9816679 A 19981230; FR 9810837 A 19980828

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200013420 A2 E 160 H04N-007/26

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

FR 2782876 A1 H04N-007/15

FR 2782878 A1 H04N-007/15

AU 9957417 A Based on patent WO 200013420

EP 1110408 A2 E H04N-007/26 Based on patent WO 200013420

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE

EP 1110408 B1 E H04N-007/26 Based on patent WO 200013420

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE

DE 69907929 E H04N-007/26 Based on patent EP 1110408

Based on patent WO 200013420

JP 2003535486 W 175 H04N-007/30 Based on patent WO 200013420

ES 2198954 T3 H04N-007/26 Based on patent EP 1110408

Abstract (Basic): WO 200013420 A2

NOVELTY - A decoding operation is performed to an encoded signal to obtain an output decoded signal. The succession of corresponding frames of the digital signal before being encoded is restored by restoring the position of the displaced pixels in relation to the packet of corresponding correction bits, when the decoding operation is performed.

DETAILED DESCRIPTION-- The encoded digital signal includes a digital signal frame, followed by a succession of correction bit packets for each sequence. INDEPENDENT CLAIMS are also included for the following:

- (a) a device for compressing and decompressing digital video signal;
- (b) a process for compressing digital video signal formed by succession of corresponding frames;
- (c) a device for compressing digital video signal formed by succession of corresponding frames;
- (d) a process for decompressing a flow of compressed binary signals;
- (e) a device for decompressing a flow of compressed binary signals;
- (f) an additional encoding process for digital data;
- (g) a preliminary decoding process;
- (h) an additional encoding device;
- (i) a preliminary decoding device;
- (j) an integrated data compression process;
- (k) a video conference system;
- (l) a video compression apparatus;
- (m) and an apparatus for processing digitally encoded video.

USE - For digital video signal. Used in video conference system. Used for various communication systems, computers, entertainment systems, education and learning systems, cameras, camcorder, video cassette recorder, digital video transmitter and receivers.

ADVANTAGE - Enables rapid operation after power-up. Enhances reliability of compression since original pre-encoding video signals are reconstructed upon completion of the coding and before final compression of the digital video signals. Enables reconstruction of animated pictures with very good quality. Enables recording information on a single medium instead of using two or three media. Reduces the

number of binary signals in the output signal of the encoding operation. Reconstructs the flow of corresponding binary signals before suppression of the majority of binary signals of determined value.

DESCRIPTION OF DRAWING(S) - The figure shows the ADV 601 type compression and decompression device.

pp; 160 DwgNo 1/28

Title Terms: COMPRESS; DECOMPRESS; PROCESS; DIGITAL; VIDEO; SIGNAL

Derwent Class: W02; W04

International Patent Class (Main): H04N-007/15; H04N-007/26; H04N-007/30

International Patent Class (Additional): H04N-007/24; H04N-007/36;

H04N-007/50

File Segment: EPI

1/5/35 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

013052971 \*\*Image available\*\*

WPI Acc No: 2000-224826/200019

Related WPI Acc No: 1999-493893; 2000-256429; 2002-697252

XRPX Acc No: N00-168395

**Pixels identifying method of input signal, involves forming histogram for pixels of output signals within selected classes in domain selected by validation signal**

Patent Assignee: HOLDING BEV SA (HOLD-N)

Inventor: PIRIM P

Number of Countries: 083 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200011610	A1	20000302	WO 98EP5383	A	19980825	200019 B
AU 9893466	A	20000314	AU 9893466	A	19980825	200031
			WO 98EP5383	A	19980825	
EP 1105842	A1	20010613	EP 98946426	A	19980825	200134
			WO 98EP5383	A	19980825	
EP 1105842	B1	20021002	EP 98946426	A	19980825	200272
			WO 98EP5383	A	19980825	
DE 69808522	E	20021107	DE 608522	A	19980825	200281
			EP 98946426	A	19980825	
			WO 98EP5383	A	19980825	

Priority Applications (No Type Date): WO 98EP5383 A 19980825

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200011610 A1 E 66 G06T-007/20

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9893466 A G06T-007/20 Based on patent WO 200011610

EP 1105842 A1 E G06T-007/20 Based on patent WO 200011610

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

EP 1105842 B1 E G06T-007/20 Based on patent WO 200011610

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DE 69808522 E G06T-007/20 Based on patent EP 1105842

Based on patent WO 200011610

Abstract (Basic): WO 200011610 A1

NOVELTY - A classifier for each domain is provided to classify pixels within each domain to selected classes within the domain. A validation signal is provided which selects one or more domains for processing. A histogram for pixels of output signal is formed within classes selected by the classifier within each domain selected by validation signal.

DETAILED DESCRIPTION - Each pixel of an input signal is analyzed an output signal for each domain is provided that contains information to identify each domain in which pixel is classified. An INDEPENDENT CLAIM is also included for pixels identification apparatus.

USE - For image processing apparatus of digital video signal output by video camera.

ADVANTAGE - Determines speed and oriented direction of area of scene in real-time by identifying and localizing area in relative movement of scene.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of temporary processing unit.

pp; 66 DwgNo 4/24

Title Terms: PIXEL; IDENTIFY; METHOD; INPUT; SIGNAL; FORMING; HISTOGRAM;

PIXEL; OUTPUT; SIGNAL; SELECT; CLASS; DOMAIN; SELECT; VALID; SIGNAL

Derwent Class: T01; W04

International Patent Class (Main): G06T-007/20

File Segment: EPI

1/5/36 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

012767889 \*\*Image available\*\*

WPI Acc No: 1999-574009/199949

Related WPI Acc No: 1999-493893; 2000-224826; 2000-256429; 2002-697252

XPX Acc No: N99-423237

**Continuous monitoring of alertness of motor vehicle driver to wake driver if he falls asleep**

Patent Assignee: CARLUS MAGNUS LTD (CARL-N); PIRIM P (PIRI-I); HOLDING BEV SA (HOLD-N)

Inventor: PIRIM P

Number of Countries: 084 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9936894	A1	19990722	WO 99FR60	A	19990114	199949 B
AU 9920580	A	19990802	AU 9920580	A	19990114	199954
BR 9906979	A	20001017	BR 996979	A	19990114	200056
			WO 99FR60	A	19990114	
US 6304187	B1	20011016	WO 99FR60	A	19990115	200164
			US 2000600394	A	20000714	

Priority Applications (No Type Date): FR 98378 A 19980115

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9936894 A1 F G08B-021/00

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9920580 A Based on patent WO 9936894

BR 9906979 A Based on patent WO 9936894

US 6304187 B1 G08B-023/00 Based on patent WO 9936894

Abstract (Basic): FR 2773521 A1

NOVELTY - The monitoring and alarm has an opto-electronic video detector (10) and electronic module (19) fitted inside the internal rear view mirror, with the detector immediately behind the unsilvered mirror glass (9). The image of the driver's face is scanned to locate the eyes, and the blinking rate monitored. If this rate falls below a threshold an alarm (22) is activated.

USE - Automatic monitoring and waking of driver who falls asleep

ADVANTAGE - Reduces risk of road accidents by monitoring state of alertness of driver and triggering alarm to wake driver if alertness falls below safe level or they fall asleep.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic of the detector fitted inside the rear view mirror

Video detector (10)

Electronic module (19)

Mirror glass (9)

Alarm (22)

pp; 32 DwgNo 4/13

Title Terms: CONTINUOUS; MONITOR; ALERT; MOTOR; VEHICLE; DRIVE; WAKE; DRIVE  
; FALL; SLEEP

Derwent Class: P31; Q13; Q17; T01; X22

International Patent Class (Main): G08B-021/00; G08B-023/00

International Patent Class (Additional): A61B-003/113; B60K-028/06;

B60R-001/04; G06T-007/20

File Segment: EPI; EngPI

1/5/37 (Item 12 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

012687784 \*\*Image available\*\*

WPI Acc No: 1999-493893/199941

Related WPI Acc No: 1999-574009; 2000-224826; 2000-256429; 2002-697252

XRFX Acc No: N99-367898

**Detecting drowsiness of vehicle driver, airplane pilot or plant operator  
by analyzing histogram of selected pixels of the eye image**

Patent Assignee: BINFORD T (BINF-I); HOLDING BEV SA (HOLD-N); PIRIM P  
(PIRI-I); CARLUS MAGNUS LTD (CARL-N)

Inventor: BINFORD T; PIRIM P

Number of Countries: 086 Number of Patents: 022

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9936893	A1	19990722	WO 99EP300	A	19990115	199941 B
FR 2773521	A1	19990716	FR 98378	A	19980115	199949
AU 9926192	A	19990802	AU 9926192	A	19990115	199954
BR 9906974	A	20001017	BR 996974	A	19990115	200056
			WO 99EP300	A	19990115	
EP 1050032	A1	20001108	EP 99900922	A	19990114	200062
			WO 99FR60	A	19990114	
EP 1050033	A1	20001108	EP 99906160	A	19990115	200062
			WO 99EP300	A	19990115	
CN 1291320	A	20010411	CN 99802989	A	19990114	200140
CN 1299498	A	20010613	CN 99802991	A	19990115	200158
TW 436436	A	20010528	TW 99100534	A	19990114	200172
JP 2002509320	W	20020326	WO 99EP300	A	19990115	200236
			JP 2000540525	A	19990115	
JP 2002509321	W	20020326	WO 99FR60	A	19990114	200236
			JP 2000540526	A	19990114	
EP 1050033	B1	20020619	EP 99906160	A	19990115	200240
			WO 99EP300	A	19990115	
DE 69901878	E	20020725	DE 99601878	A	19990115	200256
			EP 99906160	A	19990115	
			WO 99EP300	A	19990115	
EP 1050032	B1	20020724	EP 99900922	A	19990114	200256
			WO 99FR60	A	19990114	
DE 69902225	E	20020829	DE 99602225	A	19990114	200264
			EP 99900922	A	19990114	
			WO 99FR60	A	19990114	
MX 2000006815	A1	20011001	MX 20006815	A	20000711	200274
MX 2000006816	A1	20011001	MX 20006816	A	20000711	200274
DE 69904056	E	20030102	DE 99604056	A	19990125	200310
			EP 99903674	A	19990125	
			WO 99EP425	A	19990125	
ES 2179612	T3	20030116	EP 99900922	A	19990114	200316
ES 2179620	T3	20030116	EP 99906160	A	19990115	200316
US 6717518	B1	20040406	WO 99EP300	A	19990115	200425
			US 2001600390	A	20010209	

MX 216252 B 20030908 WO 99EP300 A 19990115 200465  
MX 20006815 A 20000711

Priority Applications (No Type Date): WO 98EP5383 A 19980825; FR 98378 A 19980115

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9936893 A1 E 91 G08B-021/00

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

FR 2773521 A1 32 B60K-028/02

AU 9926192 A Based on patent WO 9936893

BR 9906974 A G08B-021/00 Based on patent WO 9936893

EP 1050032 A1 F G08B-021/00 Based on patent WO 9936894

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

EP 1050033 A1 E G08B-021/00 Based on patent WO 9936893

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

CN 1291320 A G08B-021/00

CN 1299498 A G08B-021/00

TW 436436 A B60K-028/06

JP 2002509320 W 95 G08B-021/04 Based on patent WO 9936893

JP 2002509321 W 47 G08B-021/04 Based on patent WO 9936894

EP 1050033 B1 E G08B-021/00 Based on patent WO 9936893

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DE 69901878 E G08B-021/00 Based on patent EP 1050033

Based on patent WO 9936893

EP 1050032 B1 F G08B-021/00 Based on patent WO 9936894

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DE 69902225 E G08B-021/00 Based on patent EP 1050032

Based on patent WO 9936894

MX 2000006815 A1 G08B-021/00

MX 2000006816 A1 G08B-021/00

DE 69904056 E G06T-007/00 Based on patent EP 1105840

Based on patent WO 200011609

ES 2179612 T3 G08B-021/00 Based on patent EP 1050032

ES 2179620 T3 G08B-021/00 Based on patent EP 1050033

US 6717518 B1 G08B-023/00 Based on patent WO 9936893

MX 216252 B G08B-021/00 Based on patent WO 9936893

Abstract (Basic): WO 9936893 A1

NOVELTY - A spatial and temporal processing unit (11) receives a digital signal (S) originating from a video camera or other imaging device (13) monitoring a scene (13a) and the signal is preferably composed of successive pairs of interlaced frames each consisting of horizontal scanned lines of pixels or image points. Signals from the imaging device pass to a monitor or television screen (10) and to a separate processing assembly (10a) and a histogram of selected pixels of the facial characteristics of an operator are analyzed to identify the facial characteristics and detect characteristics indicating falling asleep

DETAILED DESCRIPTION - Independent claims are included for apparatus detecting an operator falling asleep, for a rearview mirror incorporating the apparatus, for a vehicle containing the apparatus and for a process of detecting a feature of the eye

USE - Detecting drowsiness of vehicle operator

DESCRIPTION OF DRAWING(S) - The drawing is a diagram illustrating the system according to the invention

Spatial and temporal processing unit (11)

Imaging system (13)

Observed scene (13a)  
 Monitor (10)  
 Separate processing assembly (10a)  
 pp; 91 DwgNo 1/36  
 Title Terms: DETECT; DROWSINESS; VEHICLE; DRIVE; AEROPLANE; PILOT; PLANT;  
 OPERATE; HISTOGRAM; SELECT; PIXEL; EYE; IMAGE  
 Derwent Class: P31; Q13; Q17; S05; T04; X22  
 International Patent Class (Main): B60K-028/02; B60K-028/06; G06T-007/00;  
 G08B-021/00; G08B-021/04; G08B-023/00  
 International Patent Class (Additional): A61B-003/113; B60R-001/04;  
 G06K-009/46; G06T-007/20  
 File Segment: EPI; EngPI

1/5/38 (Item 13 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2004 Thomson Derwent. All rts. reserv.

011706179 \*\*Image available\*\*  
 WPI Acc No: 1998-123089/199812  
 Related WPI Acc No: 2002-697252  
 XRPX Acc No: N98-097982

**Real time movement zone identification method e.g. for video camera,  
 camcorder - using pixel-based determination of differences between  
 successive frames of image to produce histograms of pixel distribution  
 that simplify image representation**

Patent Assignee: CARLUS MAGNUS LTD (CARL-N); HOLDING BEV SA (HOLD-N); SOC  
 BEV BUREAU ETUD VISION SARL (BEVV-N); HOLDING BEV (HOLD-N)

Inventor: **PIRIM P**

Number of Countries: 079 Number of Patents: 019

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2751772	A1	19980130	FR 969420	A	19960726	199812 B
WO 9805002	A1	19980205	WO 97FR1354	A	19970722	199812
AU 9737753	A	19980220	AU 9737753	A	19970722	199828
ZA 9709908	A	19980729	ZA 979908	A	19971104	199835 N
EP 912964	A1	19990506	EP 97934605	A	19970722	199922
			WO 97FR1354	A	19970722	
CN 1226329	A	19990818	CN 97196801	A	19970722	199951
BR 9710578	A	20000111	BR 9710578	A	19970722	200020
			WO 97FR1354	A	19970722	
AU 722228	B	20000727	AU 9737753	A	19970722	200041
MX 9900913	A1	19990501	MX 99913	A	19990125	200056
JP 2000516004	W	20001128	WO 97FR1354	A	19970722	200065
			JP 98508546	A	19970722	
TW 393859	A	20000611	TW 98101456	A	19980205	200108
KR 2000029599	A	20000525	WO 97FR1354	A	19970722	200110
			KR 99700663	A	19990126	
EP 912964	B1	20011031	EP 97934605	A	19970722	200169
			WO 97FR1354	A	19970722	
DE 697020886	E	20011206	DE 97607886	A	19970722	200203
			EP 97934605	A	19970722	
			WO 97FR1354	A	19970722	
ES 2165622	T3	20020316	EP 97934605	A	19970722	200227
US 6486909	B1	20021126	WO 97FR1354	A	19970722	200281
			US 99230502	A	19990913	
US 20030067978	A1	20030410	US 99230502	A	19990913	200327
			US 2002189281	A	20020703	
RU 2216780	C2	20031120	WO 97FR1354	A	19970722	200405
			RU 99103620	A	19970722	
IL 127799	A	20040328	IL 127799	A	19970722	200429

Priority Applications (No Type Date): FR 969420 A 19960726; ZA 979908 A  
 19971104

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2751772	A1	41	G06T-007/20		



WO 9805002 A1 F 71 G06T-007/20  
 Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU  
 CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV  
 MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US  
 UZ VN  
 Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT  
 KE LS LU MC MW NL OA PT SD SE SZ UG ZW  
 AU 9737753 A G06T-007/20 Based on patent WO 9805002  
 ZA 9709908 A 79 G06T-000/00  
 EP 912964 A1 F G06T-007/20 Based on patent WO 9805002  
 Designated States (Regional): AT BE CH DE DK ES FI FR GB IT LI NL PT SE  
 CN 1226329 A G06T-007/20  
 BR 9710578 A G06T-007/20 Based on patent WO 9805002  
 AU 722228 B G06T-007/20 Previous Publ. patent AU 9737753  
 Based on patent WO 9805002  
 MX 9900913 A1 G06T-007/20  
 JP 2000516004 W 70 G06T-007/20 Based on patent WO 9805002  
 TW 393859 A H04N-005/00  
 KR 2000029599 A G06T-007/20 Based on patent WO 9805002  
 EP 912964 B1 F G06T-007/20 Based on patent WO 9805002  
 Designated States (Regional): AT BE CH DE DK ES FI FR GB IT LI NL PT SE  
 DE 697020886 E G06T-007/20 Based on patent EP 912964  
 Based on patent WO 9805002  
 ES 2165622 T3 G06T-007/20 Based on patent EP 912964  
 US 6486909 B1 G06K-009/00 Based on patent WO 9805002  
 US 20030067978 A1 H04N-007/12 Cont of application US 99230502  
 Cont of patent US 6486909  
 RU 2216780 C2 G06T-007/20 Based on patent WO 9805002  
 IL 127799 A G06T-007/20 Based on patent WO 9805002

Abstract (Basic): FR 2751772 A

The method involves processing a digital image and determining the speed and direction of movement of a target object. For each pixel in the image, the existence and significant variation of the signal between two corresponding frames is determined and a Boolean signal is transmitted to indicate the presence or absence of significant variation.

A second signal indicates the magnitude of the difference, using a limited number of bits. These values are inserted in a reduced matrix using row and column to locate the value in the matrix. A histogram of values is prepared and used to determine relative movement.

USE - E.g. tracking from digital images.

ADVANTAGE - Simply constructed system with reduced memory requirements delivers information sought with minimum delay.

Dwg.10/17

Title Terms: REAL; TIME; MOVEMENT; ZONE; IDENTIFY; METHOD; VIDEO; CAMERA; CAMCORDER; PIXEL; BASED; DETERMINE; DIFFER; SUCCESSION; FRAME; IMAGE; PRODUCE; HISTOGRAM; PIXEL; DISTRIBUTE; SIMPLIFY; IMAGE; REPRESENT

Derwent Class: Q17; Q22; Q25; Q68; T01; T04; W04; W06

International Patent Class (Main): G06K-009/00; G06T-000/00; G06T-007/20; H04N-005/00; H04N-007/12

International Patent Class (Additional): B60R-000/00; B62D-000/00;

B64D-000/00; F16P-000/00; G01P-000/00; G06T-001/00; H04N-007/32

File Segment: EPI; EngPI

1/5/39 (Item 14 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010346660 \*\*Image available\*\*

WPI Acc No: 1995-247974/199533

XRPX Acc No: N95-192595

Television and radio audience measurement method - using remote receiver to identify signals by comparison with stored frequencies and transmitting information to central processor

Patent Assignee: CHARLET S (CHAR-I); PIRIM P (PIRI-I); TAVAKELIAN T

(TAVA-I)

Inventor: CHARLET S; **PIRIM P** ; TAVAKELIAN T  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2715016	A1	19950713	FR 94340	A	19940110	199533 B

Priority Applications (No Type Date): FR 94340 A 19940110

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
FR 2715016	A1	22	H04H-009/00	

Abstract (Basic): FR 2715016 A

The method uses a portable apparatus (1) which receives (2) the transmitted television and radio signals received by the TV or radio of an individual. Comparison (4) of the signals with a range of stored frequencies, allows the broadcasting station to be determined.

Information such as the transmitted frequency listened to, the listening time, the location of the receiver and socio-demographic information is collected in real time. The information is passed via a telephone to a central processor.

ADVANTAGE - Flexible, accurate and instantaneous measurement. Determination of socio-demographic profile simple and does not require listener intervention. Self-contained, independent apparatus.

Dwg.1/3

Title Terms: TELEVISION; RADIO; AUDIENCE; MEASURE; METHOD; REMOTE; RECEIVE; IDENTIFY; SIGNAL; COMPARE; STORAGE; FREQUENCY; TRANSMIT; INFORMATION; CENTRAL; PROCESSOR

Derwent Class: W01; W02

International Patent Class (Main): H04H-009/00

International Patent Class (Additional): H04N-017/04

File Segment: EPI

1/5/40 (Item 15 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

008376021 \*\*Image available\*\*

WPI Acc No: 1990-263022/199035

XRPX Acc No: N90-203717

**Electromagnetic information transfer system - has sending and receiving units in terminal and cards able to receive, store, and transmit**

Patent Assignee: CAMPS R (CAMP-I)

Inventor: CAMPS R; PERDIZAT L; **PIRIM P**

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2641632	A	19900713	FR 89122	A	19890106	199035 B

Priority Applications (No Type Date): FR 89122 A 19890106

Abstract (Basic): FR 2641632 A

The system uses electromagnetic rays at hyper frequencies. The terminal has a signal generator and a modulator in an emitting unit (3) which directs its rays to the admission point of the card (2).

The card contains a receiver and demodulator and the incoming information interacts with further information already stored on the card. The resulting information is retransmitted back to a terminal receiving unit (4) for validation and subsequent use. The terminal also comprises a roll (5) of thermal paper for recording.

ADVANTAGE - Card used in electromagnetic system can be small and is not vulnerable to damage or fraud. (11pp Dwg.No.1/5)

Title Terms: ELECTROMAGNET; INFORMATION; TRANSFER; SYSTEM; SEND; RECEIVE; UNIT; TERMINAL; CARD; ABLE; RECEIVE; STORAGE; TRANSMIT

Derwent Class: T01; T04

International Patent Class (Additional): G06K-001/20; G06K-007/06

File Segment: EPI

1/5/41 (Item 16 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

007752467 \*\*Image available\*\*  
WPI Acc No.: 1989-017579/198903  
XRPX Acc No: N89-013559

**Digital data coded transmission system - converts each data word into fraction of analogue signal period for transmission**

Patent Assignee: SRDAMB SOC RECH DEV (SRDA-N); IMAPPLY (IMAP-N); SOC RECH MAT BREVET (REMA-N); SRDAMB SOC REC DEV (SRDA-N); BONNAVAL-LAMOTHE M (BONN-I); MARCHAND R (MARC-I)

Inventor: PIRIM LEPAS DU LAC P; PIRIM P

Number of Countries: 018 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2615678	A	19881125	FR 877288	A	19870521	198903 B
EP 370152	A	19900530	EP 88402937	A	19881123	199022 N
WO 9006030	A	19900531				199025 N
EP 423119	A	19910424	EP 89901333	A	19881123	199117 N
CA 1297190	C	19920310				199216
US 5245631	A	19930914	WO 88FR571	A	19881123	199338 N
			US 91640383	A	19910118	
EP 370152	B1	19941214	EP 88402937	A	19881123	199503 N
EP 423119	B1	19941214	WO 88FR571	A	19881123	199503 N
			EP 89901333	A	19881123	
DE 3852503	G	19950126	DE 3852503	A	19881123	199509 N
			WO 88FR571	A	19881123	
			EP 89901333	A	19881123	
ES 2068207	T3	19950416	EP 88402937	A	19881123	199522 N

Priority Applications (No Type Date): FR 877288 A 19870521; EP 88402937 A 19881123; EP 89901333 A 19881123; US 91640383 A 19910118

Cited Patents: FR 2615678; US 3566033; US 3668562; US 4066841

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

FR 2615678	A		38		
------------	---	--	----	--	--

EP 370152	A				
-----------	---	--	--	--	--

Designated States (Regional): ES GR

WO 9006030	A				
------------	---	--	--	--	--

Designated States (National): DK JP MC US

Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

EP 423119	A				
-----------	---	--	--	--	--

Designated States (Regional): AT BE CH DE GB IT LI LU NL SE

US 5245631	A	17	H04L-027/10	Based on patent WO 9006030
------------	---	----	-------------	----------------------------

EP 370152	B1 F	29	H04L-027/10	
-----------	------	----	-------------	--

Designated States (Regional): ES GR

EP 423119	B1 F	29	H04L-027/10	Based on patent WO 9006030
-----------	------	----	-------------	----------------------------

Designated States (Regional): AT BE CH DE GB IT LI LU NL SE

DE 3852503	G		H04L-027/10	Based on patent EP 423119
------------	---	--	-------------	---------------------------

Based on patent WO 9006030

ES 2068207	T3		H04L-027/10	Based on patent EP 370152
------------	----	--	-------------	---------------------------

Abstract (Basic): FR 2615678 A

The data transmission system allows transmission of data comprising a series of binary words. The coding phase includes extracting from the data an analogue signal whose period is made up from several fractions of a period. Each of these fractions is a function of the relevant word. The signal is then transmitted in analogue form.

In the decoding phase the signal is cut into a number (p) of fractions corresponding to the coding process. Each fraction is then analysed in order to deduce the transmitted word.

USE/ADVANTAGE - Transmission of signal such as luminance or chrominance of tv image, allowing a high transmission rate for given

frequency band.

1/.3

Title Terms: DIGITAL; DATA; CODE; TRANSMISSION; SYSTEM; CONVERT; DATA; WORD  
; FRACTION; ANALOGUE; SIGNAL; PERIOD; TRANSMISSION

Derwent Class: W01; W02

International Patent Class (Main): H04L-027/10

International Patent Class (Additional): H03M-001/00; H04L-025/32;

H04N-007/13

File Segment: EPI

1/5/42 (Item 17 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007646561 \*\*Image available\*\*

WPI Acc No: 1988-280493/198840

XRPX Acc No: N88-212920

**Real-time processing for digital video signal - using microprocessor to generate and store histogram signal representing weight of data of different levels.**

Patent Assignee: IMAPPLY ET SYSTEMES (IMAP-N)

Inventor: PIRIM P ; THURIES S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2611063	A	19880819	FR 871981	A	19870213	198840 B

Priority Applications (No Type Date): FR 871981 A 19870213

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2611063	A		24		

Abstract (Basic): FR 2611063 A

A video signal representing an image is applied to an input circuit (1) where the digital value of sampled data and the sequencing period are extracted. The signal waveform and levels are programmed within the circuit. The information from the input circuit is applied to a VLSI chip containing a sub sequence circuit (2) which selected one or more sub sequences within a sequence in order that closer analysis may be effected.

Two position generators (4, 5) for the respective axes (4, 7) consist of microprocessors while a microprocessor in a histogram generator (3) counts the number of data having the same levels for comparison with data in the following sequence. A microcontroller (8) is programmed to compare present data with preceding data in order that the flow of data may be closely characterised.

USE/ADVANTAGE - E.g. in robotic vision system, for object detection and localisation. Large capacity memories not required.

1/6

Title Terms: REAL-TIME; PROCESS; DIGITAL; VIDEO; SIGNAL; MICROPROCESSOR;  
GENERATE; STORAGE; HISTOGRAM; SIGNAL; REPRESENT; WEIGHT; DATA; LEVEL

Derwent Class: T01; T04; X25

International Patent Class (Additional): G06F-015/70

File Segment: EPI

Set	Items	Description
S1	2	AU=(PIRIM, P? OR PIRIM P?)
File	2:INSPEC	1969-2004/Oct W4 (c) 2004 Institution of Electrical Engineers
File	6:NTIS	1964-2004/Oct W4 (c) 2004 NTIS, Intl Cpyrght All Rights Res
File	8:EI Compendex(R)	1970-2004/Oct W4 (c) 2004 Elsevier Eng. Info. Inc.
File	34:SciSearch(R)	Cited Ref Sci 1990-2004/Oct W5 (c) 2004 Inst for Sci Info
File	35:Dissertation Abs Online	1861-2004/Oct (c) 2004 ProQuest Info&Learning
File	65:Inside Conferences	1993-2004/Oct W5 (c) 2004 BLDSC all rts. reserv.
File	92:IHS Intl.Stds.& Specs.	1999/Nov (c) 1999 Information Handling Services
File	94:JICST-EPlus	1985-2004/Oct W1 (c)2004 Japan Science and Tech Corp(JST)
File	95:TEME-Technology & Management	1989-2004/Jun W1 (c) 2004 FIZ TECHNIK
File	99:Wilson Appl. Sci & Tech Abs	1983-2004/Sep (c) 2004 The HW Wilson Co.
File	103:Energy SciTec	1974-2004/Oct B2 (c) 2004 Contains copyrighted material
File	144:Pascal	1973-2004/Oct W4 (c) 2004 INIST/CNRS
File	202:Info. Sci. & Tech. Abs.	1966-2004/Nov 02 (c) 2004 EBSCO Publishing
File	233:Internet & Personal Comp. Abs.	1981-2003/Sep (c) 2003 EBSCO Pub.
File	239:Mathsci	1940-2004/Dec (c) 2004 American Mathematical Society
File	275:Gale Group Computer DB(TM)	1983-2004/Nov 04 (c) 2004 The Gale Group
File	434:SciSearch(R)	Cited Ref Sci 1974-1989/Dec (c) 1998 Inst for Sci Info
File	647:CMP Computer Fulltext	1988-2004/Oct W4 (c) 2004 CMP Media, LLC
File	674:Computer News Fulltext	1989-2004/Sep W1 (c) 2004 IDG Communications
File	696:DIALOG Telecom. Newsletters	1995-2004/Nov 03 (c) 2004 The Dialog Corp.

1/5/1 (Item 1 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7662693 INSPEC Abstract Number: B2003-07-7230G-023, C2003-07-3390C-060

**Title: Using coloured snapshots for short-range guidance in mobile robots**

Author(s): Gourichon, S.; Meyer, J.A.; Pirim, P.

Author Affiliation: AnimatLab-LIP6, Paris, France

Journal: International Journal of Robotics & Automation vol.17, no.4  
p.154-62

Publisher: IASTED,

Publication Date: 2002 Country of Publication: USA

CODEN: IJAUED ISSN: 0826-8185

SICI: 0826-8185(2002)17:4L:154:UCSS;1-5

Material Identity Number: K880-2003-001

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A); Practical (P); Theoretical (T)

Abstract: Studies of searching behaviour in bees by Cartwright and Collett (1983, 1987) led to a computational model of short-range insect guidance that has been successfully implemented on real robots. Still, its reliability depends crucially on arriving at a good match between landmarks observed in the goal place and those in any nearby place within the environment. This article describes an application of this model in a standard office environment, with unprepared landmarks that may occasionally become invisible or that are easily confused. The corresponding approach calls upon a visual chip that perceives colour and the whole height of the visual field, and upon a matching algorithm that uses colour and proceeds globally, using dynamic programming. Together, they lower the risk of spurious landmark matchings and enhance the performance of the algorithm significantly, allowing it to work without a full 360 degrees panorama and to cope with object disappearance. The performance with respect to the original model of Cartwright and Collett is assessed, both in simulation and in experiments with a real robot. Improvements over previous robotic applications of this model, or its variants, are emphasized. Directions for future improvements are indicated. (27 Refs)

Subfile: B C

Descriptors: dynamic programming; image colour analysis; image matching; mobile robots; path planning; robot vision

Identifiers: coloured snapshots; short-range guidance; mobile robots; searching behaviour; office environment; unprepared landmarks; visual chip; matching algorithm; dynamic programming; spurious matchings; visual homing; autonomous robot; snapshot model; landmark navigation

Class Codes: B7230G (Image sensors); B0260 (Optimisation techniques); B6135 (Optical, image and video signal processing); C3390C (Mobile robots); C1180 (Optimisation techniques); C7420 (Control engineering computing); C5260B (Computer vision and image processing techniques)

Copyright 2003, IEE

1/5/2 (Item 1 from file: 8)

DIALOG(R) File 8:Ei Compendex(R)

(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

06292230 E.I. No: EIP03067355443

**Title: Using coloured snapshots for short-range guidance in mobile robots**

Author: Gourichon, S.; Meyer, J.A.; Pirim, P.

Corporate Source: AnimatLab-LIP6, 75015 Paris, France

Source: International Journal of Robotics and Automation v 17 n 4 2002. p  
154-162 206-2641

Publication Year: 2002

CODEN: IJAUED ISSN: 0826-8185

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical); X;  
(Experimental)

Journal Announcement: 0302W3

Abstract: Studies of searching behaviour in bees by Cartwright and

Collett led to a computational model of short-range insect guidance that has been successfully implemented on real robots. Still, its reliability depends crucially on arriving at a good match between landmarks observed in the goal place and those in any nearby place within the environment. This article describes an application of this model in a standard office environment, with unprepared landmarks that may occasionally become invisible or that are easily confused. The corresponding approach calls upon a visual chip that perceives colour and the whole height of the visual field, and upon a matching algorithm that uses colour and proceeds globally, using dynamic programming. Together, they lower the risk of spurious landmark matchings and enhance the performance of the algorithm significantly, allowing it to work without a full 360 degree panorama and to cope with object disappearance. The performance with respect to the original model of Cartwright and Collett is assessed, both in simulation and in experiments with a real robot. Improvements over previous robotic applications of this model, or its variants, are emphasized. Directions for future improvements are indicated. 27 Refs.

Descriptors: \*Mobile robots; Motion planning; Computer vision; Color vision; Algorithms; Dynamic programming; Computer simulation; Robotics  
Identifiers: Visual homing; Snapshot model; Landmark navigation; Vision chip

Classification Codes:

731.5 (Robotics); 741.2 (Vision); 723.1 (Computer Programming); 921.5 (Optimization Techniques); 723.5 (Computer Applications)  
731 (Automatic Control Principles & Applications); 741 (Light, Optics & Optical Devices); 723 (Computer Software, Data Handling & Applications); 921 (Applied Mathematics)  
73 (CONTROL ENGINEERING); 74 (LIGHT & OPTICAL TECHNOLOGY); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

Set	Items	Description
S1	132	HISTOGRAM() CALCULATION
S2	9977273	SHAPE? OR FORM? OR PATTERN? OR CONFIGURATION? OR CAST? OR - FIGURE?
S3	257120	S2 (3N) (SPACE? OR AREA?)
S4	327224	PIXEL? OR PIX() ELEMENT? OR GRAPH OR MATRIX? OR MATRICES
S5	273	(MULTIDIMENSIONAL OR MULTI() DIMENSIONAL) () (SPACE? OR AREA?)
S6	206139	(DIGITAL OR ELECTRONIC) (2N) (SIGNAL? OR DATA OR FREQUENCY OR FREQUENCIES OR WAVE? ? OR PULSE? ? OR WAVEFORM?)
S7	138	EIGENVECTOR? OR (SEQUENCE OR ORDER OR CONSECUTIVE) () (BINARY OR TWO) () NUMBERS
S8	293747	(SYNCHRONIZATION? OR SYNCHRONISATION? OR SYNC OR MATCH? OR COMPAR? OR ACCORD?) (2N) (SIGNAL? OR DATA OR FREQUENCY OR FREQU- ENCIES OR WAVE? ? OR PULSE? ? OR WAVEFORM?)
S9	306	CENTER() GRAVITY OR IDENTIFY? () REGION?
S10	10527	(INCREMENT? OR ADD OR ADDING OR ADDITION) (2N) (COUNTER? OR - ADDER? OR TRACK? OR METER?)
S11	873552	COUNTER? OR ADDER? OR TRACK? OR METER?
S12	4213	(CONSECUTIVE OR SEQUENCE OR ORDER) (2W) (FRAME? OR WINDOW? OR VIEW? OR VISUAL OR SCREEN?)
S13	103886	VALID? OR AUTHENTICAT? OR VERIF? OR CERTIF?
S14	3	S1 AND S3
S15	47	S1 AND S2
S16	15	S15 AND S4
S17	0	S15 AND S5
S18	4	S15 AND S6
S19	0	S15 AND S8
S20	1	S15 AND S10
S21	2	S15 AND S11
S22	7499	S3 AND S4
S23	5	S22 AND S5
S24	87	S22 AND S6
S25	0	S24 AND S7
S26	2	S22 AND S7
S27	4	S24 AND S8
S28	112	S22 AND S8
S29	0	S1 AND S9
S30	0	S22 AND S9
S31	3	S22 AND S10
S32	342	S22 AND S12
S33	26	S32 AND S11
S34	0	S3 AND S9
S35	0	S7 AND S9
S36	8	S8 AND S9
S37	177	S14 OR S15 OR S16 OR S18 OR S20 OR S21 OR S23 OR S24 OR S26 OR S27 OR S31 OR S33 OR S36
S38	130	S37 AND IC=(G06F? OR G06T? OR G06K? OR G06T? OR H04N?)
S39	84	S38 AND IC=(G06F-015? OR G06F-017? OR G06T007? OR G06K-009? OR G06T-001? OR G06T-007? OR H04N-007?)
S40	2	S37 AND MC=(T01-J10B2A OR T04-D03B OR T04-D07D5)
S41	84	S39 OR S40

File 347:JAPIO Nov 1976-2004/Jul (Updated 041102)

(c) 2004 JPO & JAPIO

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200470

(c) 2004 Thomson Derwent



41/5/3 (Item 3 from file: 347)  
DIALOG(R) File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

06958961 \*\*Image available\*\*  
METHOD AND DEVICE FOR DETECTING REPEATED FRAME OF VIDEO SIGNAL

PUB. NO.: 2001-186514 [JP 2001186514 A]  
PUBLISHED: July 06, 2001 (20010706)  
INVENTOR(s): JANKO BOZIDAR  
PATEL KAMALESH  
APPLICANT(s): TEKTRONIX INC  
APPL. NO.: 2000-357347 [JP 2000357347]  
FILED: November 24, 2000 (20001124)  
PRIORITY: 99 457417 [US 99457417], US (United States of America),  
December 07, 1999 (19991207)  
INTL CLASS: H04N-007/24

ABSTRACT

PROBLEM TO BE SOLVED: To surely detect a repeated frame of a video signal that is frozen under an actual environment.

SOLUTION: A video acquisition module 12 acquires an input video signal, a subtraction unit 14 and a frame delay circuit 16 obtain an inter-pixel difference of a corresponding field of a **consecutive frame** and an absolute value unit 18 obtains an absolute difference. A bit map 20 stores the absolute differences and a threshold generator 22 obtains a threshold TH from the absolute difference. A comparator 24 compares the output signal of the bit map 20 with the threshold and stores the result to a logic bit map 26. A segment **counter** 30 obtains a count value of each segment of the logic bit map and a normalizing distribution computer 28 obtains a normalized count value. A limit circuit 32 obtains a boundary value from the normalized count value and detects the repetitive frame, in response to output the signals of comparators 34 and 36.

COPYRIGHT: (C)2001, JPO

41/5/4 (Item 4 from file: 347)  
DIALOG(R) File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

06797364 \*\*Image available\*\*  
JOINING SENSOR ARRAY EQUIPPED WITH AUXILIARY TIPS IN JOINING AREA

PUB. NO.: 2001-024846 [JP 2001024846 A]  
PUBLISHED: January 26, 2001 (20010126)  
INVENTOR(s): PROCTOR DOUGLAS E  
APPLICANT(s): XEROX CORP  
APPL. NO.: 2000-143369 [JP 2000143369]  
FILED: May 16, 2000 (20000516)  
PRIORITY: 320686 [US 99320686], US (United States of America), May 27,  
1999 (19990527)  
INTL CLASS: H04N-001/028 ; G06T-001/00 ; H01L-027/146; H01L-031/02

ABSTRACT

PROBLEM TO BE SOLVED: To correctly convert an original image into an electric signal for converting it into **digital data** and to improve a quality of the image by equipping an auxiliary photosensitive chip joined to two adjacent photosensitive chips and fitted to a substrate along a joining **area formed** between terminal part photo sites of plural adjacent photosensitive chips.

SOLUTION: An auxiliary photosensitive chip 11 is joined to two photosensitive chips 10 along a joining area of the two joined photosensitive chips 10. These chips are all provided on a substrate and form a photosensitive chip assembly. Then, each of them includes one or more linear arrays by a photo site 12 where a photosensitive surface of a

circuit is formed in the auxiliary photosensitive chip, and a set of bonding pads 14. The photo site 12 is normally arranged in a linear array along a main direction of the auxiliary photosensitive chip 11 and each photo site 12 arranged along the array corresponds to one **pixel** of an image signal.

COPYRIGHT: (C)2001,JPO

41/5/5 (Item 5 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

06133641 \*\*Image available\*\*  
IMAGE PROCESSING DEVICE AND METHOD, AND TRANSMISSION MEDIUM AND METHOD

PUB. NO.: 11-075180 [JP 11075180 A]  
PUBLISHED: March 16, 1999 (19990316)  
INVENTOR(s): KONDO TETSUJIRO  
OKUWAKI TOMONORI  
APPLICANT(s): SONY CORP  
APPL. NO.: 10-167856 [JP 98167856]  
FILED: June 16, 1998 (19980616)  
PRIORITY: 09158318 [JP 979158318], JP (Japan), June 16, 1997 (19970616)  
INTL CLASS: H04N-007/24 ; H04N-005/92 ; H04N-007/32

#### ABSTRACT

PROBLEM TO BE SOLVED: To reduce the deterioration of an image due to its thinning by thinning the **pixels** in each frame so as to arrange the **pixels** of frames constructing a moving image in a 5-mesh grid **shape** in both **space** and time directions and accordingly generating the thinned image **data**.

SOLUTION: The **digital** image **data** are supplied to a subsampling circuit 2 via an input terminal 1. In the circuit 2, the **pixels** of frames constructing a moving image, i.e., the **digital** image **data** are thinned in a 5-mesh grid **shape** in both **space** and time directions. Thus, the **pixels** exist at every second point in both space and time directions. As a result, the quantity of information that undergone the space/time 5-mesh thinning is reduced down to 1/2 original quantity of information. In other words, the quantity of information can be reduced while the resolution is kept for the moving image in the horizontal, vertical and oblique directions, respectively.

COPYRIGHT: (C)1999,JPO

41/5/6 (Item 6 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

06074444 \*\*Image available\*\*  
MASK PREPARING DEVICE, AND RECORDING MEDIUM RECORDED WITH MASK PREPARING PROGRAM

PUB. NO.: 11-015955 [JP 11015955 A]  
PUBLISHED: January 22, 1999 (19990122)  
INVENTOR(s): TANAKA JUN  
APPLICANT(s): TOPPAN PRINTING CO LTD  
APPL. NO.: 09-170418 [JP 97170418]  
FILED: June 26, 1997 (19970626)  
INTL CLASS: G06T-001/00 ; G03F-001/00; G06T-009/20

#### ABSTRACT

PROBLEM TO BE SOLVED: To reduce working time by preparing thinning image data from composite image data and edge image data, further preparing merging image data and preparing a mask from the merging image data.

SOLUTION: An image input device 201 inputs image data as digital gradation data, and a storage device 203 stores it. Next, a display 206 confirms the image data and creates edge image data that is an edge of image data if there is not something defective. Then, thinning image data is created by using the edge image data and binary image data. Pixels that become unnecessary branch parts are eliminated so that edge parts of the thinning image data may surely become contour lines that form a closed area. Color states of the area are calculated and stored by scanning and detecting the set closed area, and similar color areas are merged into each other. Next, the set merged area is stored as mask data of an image in the device 203.

COPYRIGHT: (C)1999,JPO

41/5/7 (Item 7 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

05993332 \*\*Image available\*\*  
DIGITAL IMAGE COVERING METHOD, IMAGE PROCESSOR AND DATA RECORDING MEDIUM

PUB. NO.: 10-276432 [JP 10276432 A]  
PUBLISHED: October 13, 1998 (19981013)  
INVENTOR(s): BUN CHUN SEN  
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company or Corporation), JP (Japan)  
APPL. NO.: 10-017004 [JP 9817004]  
FILED: January 29, 1998 (19980129)  
INTL CLASS: [6] H04N-007/24 ; H03M-007/30; H03M-007/36; H04N-001/41  
JAPIO CLASS: 44.6 (COMMUNICATION -- Television); 29.4 (PRECISION INSTRUMENTS -- Business Machines); 42.4 (ELECTRONICS -- Basic Circuits)  
JAPIO KEYWORD:R102 (APPLIED ELECTRONICS -- Video Disk Recorders, VDR); R303

#### ABSTRACT

PROBLEM TO BE SOLVED: To execute differential encoding processing and differential decoding processing to images or the like while suppressing encoding efficiency reduction due to covering processing by forming plural small image spaces by extracting plural pixels consisting of a source image space.

SOLUTION: A source image space 301 corresponding to an input digital image signal is composed of 8X8 pixels, for example, and includes significant pixels having significant sample values and insignificant pixels having non-significant sample values. Then, a sampled digital image signal is inputted. This digital signal corresponding to an object, namely, an image having an arbitrary shape and forms the source image space 301 including the object. Further, plural small image spaces 401-404 are generated by performing resampling processing to the source image space 301 corresponding to the digital image signal. Namely, pixels are horizontally extracted from the source image space 301 at the interval of one pixel or vertically extracted at the interval of one pixel row, four small image spaces 401-404 are generated from these pixels, the covering processing is performed.

41/5/8 (Item 8 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

05520620 \*\*Image available\*\*  
RECORDER

PUB. NO.: 09-135420 [JP 9135420 A]  
PUBLISHED: May 20, 1997 (19970520)

INVENTOR(s): FUJIWARA YUJI  
NISHINO SHOICHI  
SHIGESATO TATSURO  
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company  
or Corporation), JP (Japan)  
APPL. NO.: 07-292381 [JP 95292381]  
FILED: November 10, 1995 (19951110)  
INTL CLASS: [6] H04N-005/92 ; H04N-007/30 ; H04N-007/32  
JAPIO CLASS: 44.6 (COMMUNICATION -- Television)  
JAPIO KEYWORD: R101 (APPLIED ELECTRONICS -- Video Tape Recorders, VTR)

ABSTRACT

PROBLEM TO BE SOLVED: To attain high speed reproduction by selecting one frame among N **consecutive frame**, applying compression conversion to value picture element number in the selected frame, dividing the result into blocks, applying high efficiency coding and recording the result on one **track**.

SOLUTION: A frame selector 102 selects a head frame in 2 frames, a picture element number converter 103 reduces a horizontal valid picture element number into 480 in the case of an SD signal A and into 560 in the case of an SD signal B. A block divider 104 divides the input image whose picture element number is converted into compression blocks of 32-pixel and 96-pixel in horizontal and vertical directions, divides the SD signal A into 110 compression blocks of 22-pixel and 5-pixel in horizontal and vertical directions, and divides the SD signal B into 132 compression blocks of 22-pixel and 6-pixel in horizontal and vertical directions. A high efficiency coder 105 applies interleaving of picture elements to each of luminance and color difference signals and applies DPCM processing to attain high efficiency coding. The coded compression blocks are recorded in 135 recording blocks provided to a special reproduction **track** on a magnetic tape by a recorder 106.

41/5/9 (Item 9 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

05155413 \*\*Image available\*\*

METHOD FOR PLOTTING **GRAPH** BY ANALYZER

PUB. NO.: 08-110913 [JP 8110913 A]  
PUBLISHED: April 30, 1996 (19960430)  
INVENTOR(s): YOSHIOKA SEIICHIRO  
APPLICANT(s): HORIBA LTD [323778] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 06-270467 [JP 94270467]  
FILED: October 08, 1994 (19941008)  
INTL CLASS: [6] G06F-017/40  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)

ABSTRACT

PURPOSE: To quickly execute a **graph** plotting processing by plotting graphic data in a bit map **area formed** in a memory and simultaneously developing and plotting a bit map on a CRT screen.

CONSTITUTION: A program area 5a, a data area 5b for storing various **digital data** including graphic data and a bit map **area 5c are formed** in a memory 5. The bit map area 5c has the same size as a **graph** to be plotted on a CRT 6. A CPU 3 plots graphic data stored in the data area 5b on the bit map area 5c in accordance with a program stored in the program area 5a. The plotted graphic data are simultaneously developed on the display screen of the CRT 6 through a graphics interface 7.

41/5/10 (Item 10 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

04942336      \*\*Image available\*\*  
BLACK **PATTERN** EXTRACTING METHOD

PUB. NO.:        07-234936 [JP 7234936 A]  
PUBLISHED:      September 05, 1995 (19950905)  
INVENTOR(s):    MATSUMURA KENICHI  
APPLICANT(s):   NEC CORP [000423] (A Japanese Company or Corporation), JP  
                  (Japan)  
APPL. NO.:      06-024567 [JP 9424567]  
FILED:          February 22, 1994 (19940222)  
INTL CLASS:     [6] **G06T-007/00 ; G06T-005/00 ; G06K-009/20**  
JAPIO CLASS:    45.9 (INFORMATION PROCESSING -- Other); 45.3 (INFORMATION  
                  PROCESSING -- Input Output Units)

#### ABSTRACT

PURPOSE: To extract a black **pattern** overprinted on a background where a monochromatic **pattern** other than black is printed.

CONSTITUTION: The variance of a density histogram is a designated area generated at a density **histogram calculation** part 2 for a multiple color monochromatic image fetched by an image input part 1 is calculated by a variance calculation part 3, and an area of (background+black part) in the designated area is extracted by a background+black part sampling part 6 based on the 'density histogram of an image in which each variance can be maximized. The density histograms of another primary colors except for a color processed first are generated at a density **histogram calculation** part 7 for the area, respectively, and the variance of each density histogram is calculated by a variance calculation part 8, and the area of the black part in the designated area can be extracted by a black part extracting part 11 based on the density histogram of the image in which calculated variance can be minimized.

41/5/11        (Item 11 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

04883333      \*\*Image available\*\*  
IMAGE EVALUATING METHOD AND DEVICE THEREFOR

PUB. NO.:        07-175933 [JP 7175933 A]  
PUBLISHED:      July 14, 1995 (19950714)  
INVENTOR(s):    TSURUOKA SHINSUKE  
                  HARUYAMA KOJI  
                  YAMAMOTO YOSHIMI  
APPLICANT(s):   CANON INC [000100] (A Japanese Company or Corporation), JP  
                  (Japan)  
APPL. NO.:      05-321859 [JP 93321859]  
FILED:          December 21, 1993 (19931221)  
INTL CLASS:     [6] **G06T-007/60**  
JAPIO CLASS:    45.9 (INFORMATION PROCESSING -- Other); 46.2 (INSTRUMENTATION  
                  -- Testing)  
JAPIO KEYWORD: R002 (LASERS); R098 (ELECTRONIC MATERIALS -- Charge Transfer  
                  Elements, CCD & BBD); R105 (INFORMATION PROCESSING -- Ink Jet  
                  Printers)

#### ABSTRACT

PURPOSE: To evaluate image grade with high accuracy by detecting the position deviation in the image printed based on a centroid location in a designated image area.

CONSTITUTION: By the relative moving of a moving mechanism 10 and image pickup devices 1 and 2, the image on inspection paper 9 is read as a two-dimensional image. The video signals over all the areas of the inspection paper 9 to be evaluation objects obtained by the cooperation of

the the image pickup devices 1 and 2 and the moving mechanism 10 in this way are inputted in an image processing par 4 after an A/D conversion is performed for the signals. This image processing part 4 performs image processing calculations such as the fetching operation of image data, a **histogram calculation** and the calculation of a centroid, etc., in accordance with the operation instruction of a host computer 5. By reading printed **patterns**, storing the image data of all the areas and determining the mutual relation of the centroid locations of the **patterns** printed from the data of plural arbitrary areas of the stored image data, the image can be evaluated.

41/5/12 (Item 12 from file: 347)  
DIALOG(R) File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

04732202 \*\*Image available\*\*  
IMAGE PROCESSOR

PUB. NO.: 06-203202 [JP 6203202 A]  
PUBLISHED: July 22, 1994 (19940722)  
INVENTOR(s): EJIRI KOICHI  
APPLICANT(s): RICOH CO LTD [000674] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 04-360273 [JP 92360273]  
FILED: December 28, 1992 (19921228)  
INTL CLASS: [5] G06K-009/20 ; G06K-009/32 ; H04N-001/387  
JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units); 44.7  
(COMMUNICATION -- Facsimile)  
JAPIO KEYWORD:R107 (INFORMATION PROCESSING -- OCR & OMR Optical Readers)

#### ABSTRACT

PURPOSE: To detect and correct a skew angle easily, stably, efficiently, and securely with a small arithmetic quantity and a small number of data.

CONSTITUTION: A connection component extraction part 3 extracts connection components of a **pattern** while checking the continuity of specific **pixels** in an image and a rectangular area setting part 4 sets a rectangular area for the extracted connection components. A **histogram calculation** part 5 projects the coordinate values of the end points of the rectangular area in a specific direction within a range wherein the rectangular area is present in the image while assuming the range, thereby finding the histogram of the projection. A column detecting process part 6 detects the column of a document on the basis of the histogram of the projection and a skew angle detection part 7 detects the skew angle by using the rectangular area in the range limited from the end point of the detected column. When the skew angle is detected, a skew correction part 8 corrects the skew on the basis of the skew angle.

41/5/13 (Item 13 from file: 347)  
DIALOG(R) File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

03916476. \*\*Image available\*\*  
**PATTERN** INFORMATION SEPARATION PROCESSING SYSTEM

PUB. NO.: 04-281576 [JP 4281576 A]  
PUBLISHED: October 07, 1992 (19921007)  
INVENTOR(s): SHIMADA SATOSHI  
APPLICANT(s): NIPPON TELEGR & TELEPH CORP <NTT> [000422] (A Japanese Company or Corporation), JP (Japan)  
APPL. NO.: 03-045034 [JP 9145034]  
FILED: March 11, 1991 (19910311)  
INTL CLASS: [5] G06F-015/70 ; G01B-011/24  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications); 46.1  
(INSTRUMENTATION -- Measurement)

JOURNAL: Section: P, Section No. 1488, Vol. 17, No. 78; Pg. 101,  
February 16, 1993 (19930216)

#### ABSTRACT

PURPOSE: To improve the efficiency of separation processing of an object by setting X-Y coordinates so as to sit a direction to separate **pattern** information in a Y-axial direction, and generating a projection histogram in the Y-axial direction of a silhouette image.

CONSTITUTION: A **histogram calculation** part 101 sets a coordinate system so as to set the maximum length direction of a person area 201 in a direction in parallel with a Y-axis, and calculates the projection histogram in the Y-axial direction, and outputs a result to a separation point detecting part 102. The separation point detecting part 102 detects the separation point of a person by using the histogram, and outputs a detected separation point to a mask image generating part 103. After that, the separation point that is the recessed part of the histogram is detected, and the mask image generating part generates a mask image to separate the person by using the separation point, and an AND processing part 104 takes the AND of the silhouette image of the person and the mask image received from the mask generating part, and outputs the area images of a body, a head, and feet.

41/5/14 (Item 14 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

03854762 \*\*Image available\*\*

METHOD AND DEVICE FOR DISPLAYING MULTIDIMENSIONAL INFORMATION

PUB. NO.: 04-219862 [JP 4219862 A]

PUBLISHED: August 10, 1992 (19920810)

INVENTOR(s): NONAKA HISANORI

KOBAYASHI YASUHIRO

APPLICANT(s): HITACHI LTD [000510], (A Japanese Company or Corporation), JP  
(Japan)

APPL. NO.: 02-404087 [JP 90404087]

FILED: December 20, 1990 (19901220)

INTL CLASS: [5] **G06F-015/20** ; G09G-005/00; G09G-005/02; G09G-005/36

JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications); 44.9  
(COMMUNICATION -- Other)

JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers &  
Microprocessors)

JOURNAL: Section: P, Section No. 1458, Vol. 16, No. 568, Pg. 127,  
December 09, 1992 (19921209)

#### ABSTRACT

PURPOSE: To visually represent the increase/decrease value of a function of several variables at the periphery of one optional point on a plan by making plural areas correspond to plural quadrants having their vertexes at one point in a **multi - dimensional space** and displaying the value of the function of several variables at a point in a quadrant at the positions of one point in an area corresponding to the point.

CONSTITUTION: A CPU 4 reads a program for multidimensional information display out of a storage part 6 to a working memory 5 sequentially and executes the program to generate figure basic data for drawing a **multidimensional space expanded figure**. The **figure** basic data is logical information showing which **pixel** on, for example, an output device 1 turns on or off. The figure basic data is sent to an image data generation device 2 through an output part 3 to generate image data. The output device 1 displays a specific figure based upon the image data.

41/5/15 (Item 15 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

03553883      \*\*Image available\*\*

CHARACTER SEGMENTING DEVICE

PUB. NO.:        03-216783 [JP 3216783 A]  
PUBLISHED:      September 24, 1991 (19910924)  
INVENTOR(s):    SAITO MIE  
                 KANAMARU MASASHI  
                 TANAKA TAKEHISA  
                 SHIDA TAKEHIKO  
                 NAKA MOTOHIKO  
                 YOSHIDA KUNIO  
APPLICANT(s):   MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company  
                 or Corporation), JP (Japan)  
APPL. NO.:      02-013160 [JP 9013160]  
FILED:          January 22, 1990 (19900122)  
INTL CLASS:     [5]    **G06K-009/34**  
JAPIO CLASS:    45.3 (INFORMATION PROCESSING -- Input Output Units)  
JAPIO KEYWORD: R107 (INFORMATION PROCESSING -- OCR & OMR Optical Readers);  
                 R139 (INFORMATION PROCESSING -- Word Processors)  
JOURNAL:        Section: P, Section No. 1289, Vol. 15, No. 499, Pg. 150,  
                 December 17, 1991 (19911217)

ABSTRACT

PURPOSE: To segment the characters with use of a small number of input **patterns** by segmenting the characters out of a document image with input of the histogram of a character string into a neural circuit net type.

CONSTITUTION: An image input part 1 is provided together with a memory 11, a character string extracting part 2, a sub-character string extracting part 21, a **histogram calculation** part 3, and a character segmenting part 4. A character string is separated into (m) pieces of sub-character strings in the direction of the character string. Then the histogram of each sub-character string is obtained, and the learning is performed via a neural circuit net type 42 and with the histogram used as an input signal. Thus it is possible to segment the characters with use of a small number of input **patterns**.

**41/5/16        (Item 16 from file: 347)**

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

03551383      \*\*Image available\*\*

CONVERSION TABLE PRODUCTION CIRCUIT APPLYING SYSTOLIC ARRAY

PUB. NO.:        03-214283 [JP 3214283 A]  
PUBLISHED:      September 19, 1991 (19910919)  
INVENTOR(s):    KIMURA MASAYUKI  
                 ASO HIROTOMO  
                 OMACHI SHINICHIRO  
                 KATSUYAMA YUTAKA  
APPLICANT(s):   FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
                 (Japan)  
                 KIMURA MASAYUKI [000000] (An Individual), JP (Japan)  
APPL. NO.:      02-008421 [JP 908421]  
FILED:          January 19, 1990 (19900119)  
INTL CLASS:     [5]    **G06K-009/42**  
JAPIO CLASS:    45.3 (INFORMATION PROCESSING -- Input Output Units)  
JAPIO KEYWORD: R107 (INFORMATION PROCESSING -- OCR & OMR Optical Readers)  
JOURNAL:        Section: P, Section No. 1288, Vol. 15, No. 495, Pg. 92,  
                 December 13, 1991 (19911213)

ABSTRACT

PURPOSE: To recognize the characters, etc., at a high speed by applying the parallel processing to the histograms in a pipeline structure.



CONSTITUTION: A series circuit containing N pieces of cells  $H(1,1)-H(N,1)\dots H(1,N)-H(N,N)$  connected in series to each other is provided in N columns. The m-th cells  $H(N,1), H(N-1,2)\dots H(1,N)$  counted from the input side of the m-th column serve as the **histogram calculation** cells among those N pieces cells. Then the other cells serve as the shift registers. The **histogram calculation** cell shifts the input data to output this to the next cell and at the same time updates the width data and the count data based on the width data and the count data given from the cell precedent by one on the column contiguous to the received input data to apply those updated data to the cell following by one of the adversely contiguous column. Furthermore the histogram calculation cell contains a lateral flag register, a longitudinal width register, and a **counter**. In such a constitution, a **pattern** is recognized at a high speed.

41/5/17 (Item 17 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

03515081 \*\*Image available\*\*  
IMAGE PROCESSING DEVICE

PUB. NO.: 03-177981 [JP 3177981 A]  
PUBLISHED: August 01, 1991 (19910801)  
INVENTOR(s): SHITAMAE HIROKI  
NISHIHATA MAKOTO  
NAKAMURA OSAMU  
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 01-318381 [JP 89318381]  
FILED: December 07, 1989 (19891207)  
INTL CLASS: [5] G06F-015/68 ; H04N-001/40  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications); 44.7  
(COMMUNICATION -- Facsimile)  
JOURNAL: Section: P, Section No. 1270, Vol. 15, No. 430, Pg. 72,  
October 31, 1991 (19911031)

#### ABSTRACT

PURPOSE: To obtain an output image easy to observe corresponding to environment where a display device is placed, etc., by providing an accumulative **histogram calculation** part, a histogram **shape** conversion part, and a luminance conversion part.

CONSTITUTION: A histogram calculation part 20 is comprised so as to obtain frequency of accumulation for the luminance of a **digital** image input **signal**, and the histogram **shape** conversion part 21 is comprised so as to set output luminance for obtained frequency of accumulation arbitrarily by a user, and outputs luminance rewrite information to generate the characteristic of luminance to output luminance of the **digital** image input **signal**. The luminance conversion part 23 generates the characteristic of input luminance to output luminance which converts the **digital** image input **signal** from the image delay part 22 based on the luminance rewrite information. In such a way, the user can freely select the optimum contrast corresponding to the environment where the display device is placed, and obtain the output image easy to observe than ever.

41/5/18 (Item 18 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

03128183  
FRAME LINE EXTRACTING SYSTEM

PUB. NO.: 02-103683 [JP 2103683 A]  
PUBLISHED: April 16, 1990 (19900416)

INVENTOR(s): KOKAWAHARA ATSUKO  
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 63-256707 [JP 88256707]  
FILED: October 12, 1988 (19881012)  
INTL CLASS: [5] **G06F-015/70**  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)  
JOURNAL: Section: P, Section No. 1073, Vol. 14, No. 317, Pg. 167, July  
09, 1990 (19900709)

#### ABSTRACT

PURPOSE: To fast and accurately extract a frame line even in case the frame line has a disconnected part or a table or a scale is attached to the frame line by obtaining a histogram from the vector of a line **pattern** drawn on a drawing.

CONSTITUTION: A **histogram calculation** part obtains the X and Y directional histograms of a range within a prescribed range from the outer circumference of a drawing based on the vector where a line **pattern** on the drawing is shown by start and end point coordinates. A frame line area calculation part obtains the **areas** of sides **forming** a frame line from those histograms. Then a vector extracing part obtains a frame line vector where one or both of the start and end point coordinates are included within a frame **formed** by those obtained sides and then outputs the frame line vector. Thus it is possible to fast and accurately extract a frame line even in case the frame line has a disconnected part or a table or a scale is attached to the frame line.

41/5/19 (Item 19 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

02935977 \*\*Image available\*\*

FEATURE POINT **HISTOGRAM CALCULATION** SYSTEM

PUB. NO.: 01-233577 [JP 1233577 A]  
PUBLISHED: September 19, 1989 (19890919)  
INVENTOR(s): TORIO TAKASHI  
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 63-060134 [JP 8860134]  
FILED: March 14, 1988 (19880314)  
INTL CLASS: [4] **G06F-015/70**  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)  
JOURNAL: Section: P, Section No. 975, Vol. 13, No. 563, Pg. 9,  
December 14, 1989 (19891214)

#### ABSTRACT

PURPOSE: To calculate the feature point histogram of an input image at high speed by providing a feature **pattern** setting means, a maximum value filter, a minimum value filter, a two-dimensional **histogram calculation** means, and a two-dimensional histogram accumulation means.

CONSTITUTION: An original image (A) from an input part 1, after being converted to a digital image, is outputted to the maximum value filter 3 and the minimum value filter 4 via a feature **pattern** setting part 2. The filter 3 calculates the maximum value (D) of the image element value of an image element shown as 0 out of feature **patterns** in a window with a prescribed area at every image element of the input image, and the filter 4 calculates the minimum value (C) of the image element value of the image element shown as 1 similarly. Next, a two-dimensional **histogram calculation** part 5 calculates the density value of the image from the images C and D, and adds 1 on the content of a two-dimensional histogram memory 6 of a corresponding address, and a two-dimensional histogram is accumulated at a histogram accumulation part 7. In such a way, since the total number of the feature points of the input image can be calculated in a time of one time of scan, the feature point histogram can be calculated at high speed.

41/5/20 (Item 20 from file: 347)  
DIALOG(R) File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

02489603 \*\*Image available\*\*  
APPARATUS FOR DETECTING POSITION OF PART

PUB. NO.: 63-106503 [JP 63106503 A]  
PUBLISHED: May 11, 1988 (19880511)  
INVENTOR(s): MATSUMOTO YUKINORI  
APPLICANT(s): SANYO ELECTRIC CO LTD [000188] (A Japanese Company or Corporation), JP (Japan)  
APPL. NO.: 61-252192 [JP 86252192]  
FILED: October 23, 1986 (19861023)  
INTL CLASS: [4] G01B-011/00; G06F-015/62 ; G06F-015/70 ; H01L-021/52; H01L-021/68  
JAPIO CLASS: 46.1 (INSTRUMENTATION -- Measurement); 42.2 (ELECTRONICS -- Solid State Components); 45.4 (INFORMATION PROCESSING -- Computer Applications)  
JOURNAL: Section: P, Section No. 760, Vol. 12, No. 350, Pg. 141, September 20, 1988 (19880920)

#### ABSTRACT

PURPOSE: To accurately calculate the center position of a part in a relatively simple manner, by calculating a projection histogram with respect to the information on the estimated range of presence of a part to be mounted by a projection **histogram calculation** part and applying unidimensional masking to the calculation result.

CONSTITUTION: A projection **histogram calculation** part 4 forms the projection histogram to an X-axis and a Y-axis with respect to the data sent from a binary image memory part 1 on the basis of the information of the sizes in X.Y directions of an area where the presence of the cylindrical part received from a reference memory part 2 is estimated to send the same to a one-dimensional mask processing part 5. The processing part 5 sets a mask with respect to the projection histogram calculated in the calculation part 4 on the basis of the size information of the cylindrical part itself received from the memory part 2 in X-Y directions to perform processing for calculating the projection histogram sum in the mask. By this method, the center position of the part can be accurately calculated in a relatively simple manner.

41/5/21 (Item 21 from file: 347)  
DIALOG(R) File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

02191481 \*\*Image available\*\*  
DENSITY HISTOGRAM DETECTING SYSTEM

PUB. NO.: 62-108381 [JP 62108381 A]  
PUBLISHED: May 19, 1987 (19870519)  
INVENTOR(s): TORIO TAKASHI  
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP (Japan)  
APPL. NO.: 60-249319 [JP 85249319]  
FILED: November 07, 1985 (19851107)  
INTL CLASS: [4] G06K-009/46  
JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units)  
JOURNAL: Section: P, Section No. 628, Vol. 11, No. 324, Pg. 56, October 22, 1987 (19871022)

#### ABSTRACT

PURPOSE: To calculate a density histogram at every area with one scanning of an image by calculating an OR between the first image memory and the

second image memory after the content of the second image memory is shifted by prescribed number of bits in a high-order bit direction.

CONSTITUTION: A synthesis circuit 10 reads out in order the contents of an image memory 2 holding a variable density image from an input part 1 and an image memory 5 holding the image processed at a labeling circuit 4, and stores them at the first and the second registers not shown in figure. The content of the second register is shifted by eight bits to the left. After that, the OR between the first and the second registers is calculated and is sent to a **histogram calculation** circuit 8. Next, the circuit 8 calculates the output value of the circuit 10, and finds the density histogram, and stores it at an address on a histogram memory 9. Simultaneously, '1' is added on the address area of the memory 9 corresponding to the output value of the circuit 10 held by the circuit 8.

41/5/22 (Item 22 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

02190484 \*\*Image available\*\*  
SEGMENT EXTRACTING DEVICE

PUB. NO.: 62-107384 [JP 62107384 A]  
PUBLISHED: May 18, 1987 (19870518)  
INVENTOR(s): KAHARA KEIJI  
MARUYAMA TSUGIHITO  
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 60-247778 [JP 85247778]  
FILED: November 05, 1985 (19851105)  
INTL CLASS: [4] **G06K-009/46**  
JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units)  
JOURNAL: Section: P, Section No. 627, Vol. 11, No. 319, Pg. 114,  
October 17, 1987 (19871017)

#### ABSTRACT

PURPOSE: To execute a function value calculation and a **histogram calculation** in parallel and at a high speed by providing separately a function value calculating part and a histogram generating part.

CONSTITUTION: A function value calculating part 1 calculates a function value of a corresponding mapping function from contour point coordinates (xi, yi) and supplies its output to a histogram generating part 3 through a buffer 2. This histogram generating part 3 executes a histogram generating calculation from a function value which is supplied through the buffer 2, and writes its result in a histogram memory (not shown in the figure). This function value calculating part 1 and the histogram generating part 3 can be executed simultaneously, therefore, they can be executed at a high speed.

41/5/23 (Item 23 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

02156479 \*\*Image available\*\*  
**HISTOGRAM CALCULATION SYSTEM FOR SIGNAL SERIES**

PUB. NO.: 62-073379 [JP 62073379 A]  
PUBLISHED: April 04, 1987 (19870404)  
INVENTOR(s): MIZUNO HIROTAKA  
FURUMURA FUMINOBU  
APPLICANT(s): HITACHI LTD [000510] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 60-212368 [JP 85212368]  
FILED: September 27, 1985 (19850927)  
INTL CLASS: [4] **G06F-015/36 ; G06F-015/353 ; G06F-015/62**  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)

ABSTRACT

PURPOSE: To improve the accuracy of a histogram in a frequency direction by using the sample of an original signal series as well as a sample generated by interpolating the **former** sample.

CONSTITUTION: An image interpolation part 21 inputs an input image 110 stored in an image memory 11 and interpolates said image, whereby more images than the sample number of input images are generated, and the generated and interpolated images are outputted to a **histogram calculation** part 22. It inputs the interpolated images, and outputs an enlarged histogram 130 to a histogram storage memory. Thus a ratio of the total sample number to a level number that a signal value can take can be doubled, and the accuracy of the histogram in the frequency direction can be improved accordingly.

41/5/24 (Item 24 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

01637581 \*\*Image available\*\*

EXTRACTING CIRCUIT OF CHARACTER AREA

PUB. NO.: 60-116081 [JP 60116081 A]

PUBLISHED: June 22, 1985 (19850622)

INVENTOR(s): TORIO TAKASHI

GOTO TOSHIYUKI

IWASE HIROMICHI

APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
(Japan)

APPL. NO.: 58-223125 [JP 83223125]

FILED: November 29, 1983 (19831129)

INTL CLASS: [4] **G06K-009/46**

JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units)

JOURNAL: Section: P, Section No. 400, Vol. 09, No. 269, Pg. 123,  
October 26, 1985 (19851026)

ABSTRACT

PURPOSE: To extract stably a character area at a high speed without using picture memory by dispersing the degree of a density gradient direction histogram, and comparing at least two types of thresholds, and extracting a character candidate area.

CONSTITUTION: An input picture signal S is converted into a digital picture by an analogue/digital convertor circuit 11. The 1st and the 2nd density gradient detection circuits 12 and 13 scan a differential filter having such **shapes** as shown in **Figures** (a) and (b), and a density gradient direction circuit 14 transfers successively output values d(sub 1) and d(sub 2). According to the output values d(sub 1) and d(sub 2), the density gradient direction detection circuit 14 calculates the direction of density gradient, and a **histogram calculation** part 2 calculates a density gradient direction histogram by the obtained value. A variance calculation part 3 calculates the variance of degree of the density gradient direction histogram. On the other hand, a character area extractor 4 extracts the candidate of a character area by using two types of thresholds, and a real character area is extracted based on the extracted result.

41/5/25 (Item 25 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

01637575 \*\*Image available\*\*

APPROXIMATE PRETREATMENT SYSTEM OF FREE-DRAWING POLYGONAL LINE

PUB. NO.: 60-116075 [JP 60116075 A]  
 PUBLISHED: June 22, 1985 (19850622)  
 INVENTOR(s): IWATA KIYOSHI  
 MATSUURA TOSHIO  
 NISHIKAWA KATSUHIKO  
 INOUE AKIRA  
 APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
 (Japan)  
 APPL. NO.: 58-223122 [JP 83223122]  
 FILED: November 29, 1983 (19831129)  
 INTL CLASS: [4] G06F-015/62 ; G06F-015/40 ; H04N-001/40  
 JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications); 44.7  
 (COMMUNICATION -- Facsimile)  
 JOURNAL: Section: P, Section No. 400, Vol. 09, No. 269, Pg. 121,  
 October 26, 1985 (19851026)

#### ABSTRACT

PURPOSE: To execute pretreatment efficiently by measuring black run length by dividing an input picture into a rectangular areas and scanning them horizontally and vertically, and by deciding a size of the rectangular area automatically in accordance with the black run length of the maximum frequency.

CONSTITUTION: When a picture inputted to a picture input device 1 is stored in a picture memory 2, and the inputted picture is scanned horizontally and vertically by an address control circuit 3, the point in which a **figure** of the inputted picture changes white to black is detected by a black/white changing point detection circuit 4, and black run length is measured by a black length measuring circuits. Due to the measured result, a histogram is calculated by a **histogram calculation** circuit 6. In a rectangular area size decision circuit 7, width of a rectangular area is decided so that it can be larger than the black run length with the maximum frequency. As a result, a size of a rectangular area is automatically decided in accordance with the black run length of the maximum frequency; therefore pretreatment of an approximate system can be executed efficiently.

41/5/26 (Item 26 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

01100380 \*\*Image available\*\*  
 CHARACTER RECOGNIZING METHOD

PUB. NO.: 58-037780 [JP 58037780 A]  
 PUBLISHED: March 05, 1983 (19830305)  
 INVENTOR(s): HIGUCHI KOICHI  
 YAMADA YOICHI  
 YAMASHITA YOSHIYUKI  
 APPLICANT(s): OKI ELECTRIC IND CO LTD [000029] (A Japanese Company or  
 Corporation), JP (Japan)  
 APPL. NO.: 56-134840 [JP 81134840]  
 FILED: August 29, 1981 (19810829)  
 INTL CLASS: [3] G06K-009/62 ; G06K-009/68  
 JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units)  
 JAPIO KEYWORD: R106 (INFORMATION PROCESSING -- Kanji Information Processing)  
 ; R107 (INFORMATION PROCESSING -- OCR & OMR Optical Readers)  
 JOURNAL: Section: P, Section No. 199, Vol. 07, No. 121, Pg. 8, May 25,  
 1983 (19830525)

#### ABSTRACT

PURPOSE: To absorb deformation of characters for the accurate recognition of the characters, by discriminating through the use of a blur characteristic **matrix** which performs blur processing applied with a simple converting formula, after the forming of a normalized characteristic **matrix**.

CONSTITUTION: A **digital** **signal** photoelectric-converting 2 and quantizing a character **graph** is stored in a pattern register 3 as an original pattern. Sub-patterns representing stroke components to all directions are picked up 5-8 from the said original pattern and stored in a sub-**pattern** register, and an **area** in character frame of the said original pattern is split 10 into (MXN) sets of **matrix** -areas as to the said sub-pattern register and a characteristic amount representing the length of character lines in each area is normalized in the size of characters to form 11 a characteristic **matrix**, which is collated with a standard character **matrix** for the recognition of a character **graph**. The said characteristic **matrix** is provided with a blur processing section 12 for the discrimination, allowing to absorb the deformation of characters and to recognize the character **graph** accurately.

41/5/38 (Item 12 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

014793958 \*\*Image available\*\*  
WPI Acc No: 2002-614664/200266  
XRPX Acc No: N02-487180

**Digital video system carries out synchronous reproduction of index-picture which shows shape of video object in video program**

Patent Assignee: KOURA Y (KOUR-I)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002218433	A	20020802	JP 20015985	A	20010115	200266 B

Priority Applications (No Type Date): JP 20015985 A 20010115

Patent Details:

Patent No	Kind	Lang	Pg	Main IPC	Filing Notes
JP 2002218433	A		40	H04N-007/173	

Abstract (Basic): JP 2002218433 A

NOVELTY - An index picture comprises a **pixel** having a prescribed word length and specifies a value to the **pixel** such that the **pixel forms** the **area** showing the **shape** of a video object in a video program. A transduction device transduces the video program and carries out synchronous reproduction of the index picture.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Video image information acquisition method;
- (2) Two-way viewing-and-listening system;
- (3) Two-way viewing-and-listening device;
- (4) Decoder;
- (5) Transduction medium; and
- (6) Recorded medium storing video image information acquisition program.

USE - Digital video system for display of ground- **wave** and satellite **digital** broadcast.

ADVANTAGE - Enables addition of various sub-content with respect to the video program moving image during viewing and listening by an intuitive operation of a viewer. Increases acquisition selectivity of sub-content by using the various transduction devices of link information.

DESCRIPTION OF DRAWING(S) - The figure shows an example of the digital video system and the video image information acquisition process. (Drawing includes non-English language text).

pp; 40 DwgNo 1/20

Title Terms: DIGITAL; VIDEO; SYSTEM; CARRY; SYNCHRONOUS; REPRODUCE; INDEX; PICTURE; SHOW; SHAPE; VIDEO; OBJECT; VIDEO; PROGRAM

Derwent Class: W02; W04

International Patent Class (Main): H04N-007/173

International Patent Class (Additional): H04N-005/262 ; H04N-005/91 ; H04N-005/92 ; H04N-007/32

File Segment: EPI

41/5/39 (Item 13 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

014773553 \*\*Image available\*\*  
WPI Acc No: 2002-594259/200264  
XRPX Acc No: N02-471701

**Video signal generator for electronic endoscope, has image sensor with CMOS transistors for generating pixel signals which are processed based on control signal to deliver video output**  
Patent Assignee: ASAH I OPTICAL CO LTD (ASAO )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
JP 2002185853 A 20020628 JP 2000378383 A 20001213 200264 B

Priority Applications (No Type Date): JP 2000378383 A 20001213

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
JP 2002185853 A 7 H04N-005/335

Abstract (Basic): JP 2002185853 A

NOVELTY - Image sensor (11) has image forming region (22) and control signal storage area (23) formed by CMOS transistors (21) and bit registers (28) respectively. The pixel signals are generated based on the image formed in the image forming region. A pixel signal processing circuit (26) processes the pixel signal based on the control signal to deliver video signal.

USE - Used as image pick-up device for electronic endoscope.

ADVANTAGE - Minimizes length of transmission cable from CMOS image sensor and external device. Provides a narrow diameter flexible tube.

DESCRIPTION OF DRAWING(S) - The figure shows the image sensor.  
(Drawing includes non-English language text).

Image sensor (11)  
CMOS transistors (21)  
Image forming region (22)  
Control signal storage area (23)  
Pixel signal processing circuit (26)  
Bit registers (28)  
pp; 7 DwgNo 2/6

Title Terms: VIDEO; SIGNAL; GENERATOR; ELECTRONIC; ENDOSCOPE; IMAGE; SENSE;  
CMOS; TRANSISTOR; GENERATE; PIXEL ; SIGNAL; PROCESS; BASED; CONTROL;  
SIGNAL; DELIVER; VIDEO; OUTPUT

Derwent Class: P31; S02; S05; U13; W04

International Patent Class (Main): H04N-005/335

International Patent Class (Additional): A61B-001/04; H01L-027/146;

H04N-007/18

File Segment: EPI; EngPI

41/5/40 (Item 14 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

014579757 \*\*Image available\*\*  
WPI Acc No: 2002-400461/200243  
XRPX Acc No: N02-314284

**Pixel density histogram calculation circuit for image processing device, controls shift of histogram data and incrementation of shift amount data based on overflow signal**  
Patent Assignee: OLYMPUS OPTICAL CO LTD (OLYU )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week



JP 2002109535 A 20020412 JP 2000297913 A 20000929 200243 B

Priority Applications (No Type Date): JP 2000297913 A 20000929

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
JP 2002109535 A 12 G06T-007/00

Abstract (Basic): JP 2002109535 A

NOVELTY - A controller controls the shift of histogram data and incrementation of shift amount data based on an overflow signal which is generated, when the incremented value of histogram data exceeds a predetermined value.

USE - For image processing system.

ADVANTAGE - Generates histogram representing **pixel** density of input image, efficiently.

DESCRIPTION OF DRAWING(S) - The **figure** shows the block diagram of the histogram calculating device.

pp; 12 DwgNo 5/11

Title Terms: **PIXEL** ; DENSITY; HISTOGRAM; CALCULATE; CIRCUIT; IMAGE; PROCESS; DEVICE; CONTROL; SHIFT; HISTOGRAM; DATA; SHIFT; AMOUNT; DATA; BASED; OVERFLOW; SIGNAL

Derwent Class: T01

International Patent Class (Main): G06T-007/00

International Patent Class (Additional): G06T-001/00 ; G06T-001/60

File Segment: EPI

41/5/41 (Item 15 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014239283 \*\*Image available\*\*

WPI Acc No: 2002-059981/200208

XRPX Acc No: N02-044590

Digital elevation model smoothening device extracts and outputs a DEM within boundary of peak value of probability density function of DEM value extracted from synthesized input DEM with outline vector data of building

Patent Assignee: NEC CORP (NIDE )

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2001312716	A	20011109	JP 2000128884	A	20000428	200208. B
JP 3338823	B2	20021028	JP 2000128884	A	20000428	200278

Priority Applications (No Type Date): JP 2000128884 A 20000428

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 2001312716 A 6 G06T-001/00

JP 3338823 B2 6 G06T-001/00 Previous Publ. patent JP 2001312716

Abstract (Basic): JP 2001312716 A

NOVELTY - An overlapping unit (102) synthesizes the input digital elevation model (DEM) and the outline vector data of a building. An extraction unit (103) extracts the DEM of building from the synthesized output, for generating a DEM histogram from which a DEM normalization unit (105) obtains the peak value of probability density function of DEM value. A smoothening unit (106) extracts a DEM within boundary of the peak value, and outputs it.

USE - Digital elevation model smoothening device.

ADVANTAGE - Automatic extraction of height of building is enabled, with high accuracy, in real time, efficiently.

DESCRIPTION OF DRAWING(S) - The **figure** shows the block diagram of digital elevation model smoothening device.

Data entry unit (101)

Overlapping unit (102)

Extraction unit (103)

DEM histogram calculation unit (104)

DEM normalization unit (105).

DEM smoothening unit (106)

Data output unit (107)

pp; 6 DwgNo 1/5

Title Terms: DIGITAL; ELEVATE; MODEL; DEVICE; EXTRACT; OUTPUT; BOUNDARY;  
PEAK; VALUE; PROBABILITY; DENSITY; FUNCTION; VALUE; EXTRACT; SYNTHESIS;  
INPUT; OUTLINE; VECTOR; DATA; BUILD

Derwent Class: S02; T01

International Patent Class (Main): G06T-001/00

International Patent Class (Additional): G01B-011/00; G01C-003/06;

H04N-007/18; H04N-013/00

File Segment: EPI

41/5/42 (Item 16 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014073515 \*\*Image available\*\*

WPI Acc No: 2001-557728/200162

XRAM Acc No.: C01-165866

XRPX Acc No: N01-414466

**Generating (assembling) consensus nucleotide sequence of genome from  
shot-gun data set having fragments of nucleotide sequence randomly  
selected from genome and mate pair indicating distance between fragment  
pairs**

Patent Assignee: PE CORP NY (PEKE ); APPLERA CORP (APPL-N)

Inventor: DELCHER A L; DEW I M; FLANIGAN M J; KRAVITZ S A; MOBARRY C M;

MYERS G W; REINERT K; REMINGTON K A; SUTTON G G

Number of Countries: 095 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200163543	A2	20010830	WO 2001US2704	A	20010129	200162 B
AU 200136555	A	20010903	AU 200136555	A	20010129	200202
EP 1285390	A2	20030226	EP 2001908713	A	20010129	200319
			WO 2001US2704	A	20010129	
JP 2003530631	W	20031014	JP 2001562433	A	20010129	200368
			WO 2001US2704	A	20010129	
US 6714874	B1	20040330	US 2000526131	A	20000315	200423

Priority Applications (No Type Date): US 2000526131 A 20000315; US  
2000183758 P 20000222

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

WO 200163543	A2	E	47	G06F-019/00	
--------------	----	---	----	-------------	--

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200136555	A			G06F-019/00	Based on patent WO 200163543
--------------	---	--	--	-------------	------------------------------

EP 1285390	A2	E		G06F-019/00	Based on patent WO 200163543
------------	----	---	--	-------------	------------------------------

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

JP 2003530631	W			63 G06F-017/30	Based on patent WO 200163543
---------------	---	--	--	----------------	------------------------------

US 6714874	B1			G06N-003/12	
------------	----	--	--	-------------	--

Abstract (Basic): WO 200163543 A2

NOVELTY-- Generating consensus nucleotide sequence representing a  
nucleotide sequence of a genome from shot-gun data set which comprises  
multiple fragments comprising nucleotide sequence data selected at  
random from the genome, and further comprising mate pair data  
indicating distance between pairs of the fragments.

DETAILED DESCRIPTION - Generating a consensus nucleotide sequence  
which represents nucleotide sequence of a genome, from a shot-gun data

**Probability-density estimation apparatus for deviation degree calculation apparatus for fraud prevention during telephone call billing, updates various values stored in memory based on calculated probability**

Patent Assignee: NEC CORP (NIDE )

Inventor: TAKEUCHI J; YAMANISHI K

Number of Countries: 003 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2001101154	A	20010413	JP 99275437	A	19990929	200138 B
AU 200061357	A	20010405	AU 200061357	A	20000928	200138
GB 2361336	A	20011017	GB 200023805	A	20000928	200161
AU 769001	B	20040115	AU 200061357	A	20000928	200409
JP 3506068	B2	20040315	JP 99275437	A	19990929	200419

Priority Applications (No Type Date): JP 99275437 A 19990929

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2001101154	A		16	G06F-015/18	
AU 200061357	A			G07F-007/12	
GB 2361336	A			G06F-017/18	
AU 769001	B			G07F-007/12	Previous Publ. patent AU 200061357
JP 3506068	B2	15		G06N-001/00	Previous Publ. patent JP 2001101154

Abstract (Basic): JP 2001101154 A

NOVELTY - The probability-density estimation apparatus (21) has memory to store average of each normal distribution, distributed parameter value and weight parameter of each normal distribution. A calculator calculates probability of reading the various parameters stored in the memory. A parameter rewriting unit updates data stored in the memory corresponding to the output of calculator.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Deviation degree calculation apparatus;

(b) Oblivion-type **histrogram calculation** apparatus

USE - For deviation degree calculation apparatus for fraud prevention of call billing e.g. in portable telephone and also in card utilization, cloning.

ADVANTAGE - Data with statistics irrelevant value, incorrect data, fraudulent data, etc., and abnormal within convergence of large scale data are identified easily.

DESCRIPTION OF DRAWING(S) - The **figure** shows the block diagram of probability-density estimation apparatus. (The drawing includes non-English language text).

Probability-density estimation apparatus (21)

pp; 16 DwgNo 3/16

Title Terms: PROBABILITY; DENSITY; ESTIMATE; APPARATUS; DEVIATE; DEGREE; CALCULATE; APPARATUS; FRAUD; PREVENT; TELEPHONE; CALL; BILL; UPDATE; VARIOUS; VALUE; STORAGE; MEMORY; BASED; CALCULATE; PROBABILITY

Derwent Class: P86; T01; W04

International Patent Class (Main): G06F-015/18 ; G06F-017/18 ; G06N-001/00; G07F-007/12

International Patent Class (Additional): G06F-001/02 ; G06F-019/00 ; G06F-101-14 ; G10L-015/06; H04Q-007/34

File Segment: EPI; EngPI

41/5/46 (Item 20 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

013816585 \*\*Image available\*\*

WPI Acc No: 2001-300797/200132

Related WPI Acc No: 2001-479805

XRPX Acc No: N03-675901

**High-speed convolution apparatus for image processing, extracts specific number of partial area data from accumulative image data which is generated by adding digital image data to pixel value in**

**rectangular area**

Patent Assignee: LG ELECTRONICS INC (GLDS )  
Inventor: HONG C G; KIM C U; KIM C W; HONG C; KIM C  
Number of Countries: 004 Number of Patents: 005  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
CN 1279448	A	20010110	CN 2000119334	A	20000628	200132 B
KR 2001004946	A	20010115	KR 9925717	A	19990630	200379
US 6643412	B1	20031104	US 99413490	A	19991006	200379
KR 298327	B	20011101	KR 9925717	A	19990630	200238
TW 504657	A	20021001	TW 2000110247	A	20000526	200337

Priority Applications (No Type Date): KR 9925717 A 19990630

**Patent Details:**

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CN 1279448	A			G06T-005/00	
KR 2001004946	A	1		G06T-001/00	
US 6643412	B1	15		G06K-009/64	
KR 298327	B			G06T-001/00	Previous Publ. patent KR 2001004946
TW 504657	A			G06K-009/32	

Abstract (Basic): US 6643412 B1

NOVELTY - An accumulative image data generator (100) adds the **digital image data** of an input image, to a **pixel** value in an **rectangular area formed** by specific **pixels**, to generate an accumulative image data. A predetermined number of partial area data extracted from the accumulative image data, is relatively subtracted/added to obtain corresponding area image data which is multiplied with the corresponding mask step value.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for high-speed convolution method.

USE - For performing high-speed convolution during image processing.

ADVANTAGE - Enables performing high-speed convolution, reliably.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the high-speed convolution apparatus.

accumulative image data generator (100)

corresponding data area calculator (200)

**pixel** convolution value output (300)

multiplier (301)

adder (321)

pp; 15 DwgNo 9/11

Title Terms: HIGH; SPEED; CONVOLUTE; APPARATUS; IMAGE; PROCESS; EXTRACT;  
SPECIFIC; NUMBER; AREA; DATA; ACCUMULATE; IMAGE; DATA; GENERATE; ADD;  
DIGITAL; IMAGE; DATA; **PIXEL** ; VALUE; RECTANGLE; AREA

Derwent Class: T01

International Patent Class (Main): G06K-009/32 ; G06K-009/64 ;  
G06T-001/00 ; G06T-005/00

International Patent Class (Additional): G06K-009/32

File Segment: EPI

41/5/47 (Item 21 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

013522324 \*\*Image available\*\*

WPI Acc No: 2001-006530/200101

Related WPI Acc No: 2001-522641; 2002-226302; 2002-267797

XRPX Acc No: N01-004681

**Match identification between query and data set items using matching engine, involves identifying regions with best matching solution, by determining regions having upper probability bound greater than threshold**

Patent Assignee: PC MULTIMEDIA LTD (PCMU-N)

Inventor: MOSS S; TURNER M; ZANELLI P

Number of Countries: 091 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200049527	A1	20000824	WO 2000GB492	A	20000216	200101 B
AU 200026786	A	20000904	AU 200026786	A	20000216	200103
EP 1155375	A1	20011121	EP 2000905153	A	20000216	200176
			WO 2000GB492	A	20000216	
BR 200008956	A	20020213	BR 20008956	A	20000216	200220
			WO 2000GB492	A	20000216	
CN 1342291	A	20020327	CN 2000804018	A	20000216	200247
JP 2002537605	W	20021105	JP 2000600198	A	20000216	200304
			WO 2000GB492	A	20000216	

Priority Applications (No Type Date): GB 993697 A 19990219

#### Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200049527	A1	E	33	G06F-017/30	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200026786	A		G06F-017/30	Based on patent WO 200049527
--------------	---	--	-------------	------------------------------

EP 1155375	A1	E	G06F-017/30	Based on patent WO 200049527
------------	----	---	-------------	------------------------------

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

BR 200008956	A		G06F-017/30	Based on patent WO 200049527
--------------	---	--	-------------	------------------------------

CN 1342291	A		G06F-017/30	
------------	---	--	-------------	--

JP 2002537605	W	29	G06F-017/30	Based on patent WO 200049527
---------------	---	----	-------------	------------------------------

#### Abstract (Basic): WO 200049527 A1

NOVELTY - A transformation space is defined. An upper bound is determined to the probability of match between query and data representation under any transformation for regions spanning the transformation space. The regions having upper probability bound greater than the determined threshold probability are determined, for identifying solution regions with best matching solution.

DETAILED DESCRIPTION - The method involves providing topological representation for data and query items. A transformation space is defined. An upper bound to the probability of match between query representation and data representation is determined. Using Bayesian probability theory. Upper probability bound of each region is compared with determined threshold probability and the upper probability bound regions greater than threshold probability are determined to identify solution regions with best matching solutions. INDEPENDENT CLAIMS are also included for the following:

- (a) matching engine for identifying item;
- (b) computer program for method of matching item and query item;
- (c) computer program code for identifying item or query item

USE - For identifying best matches or set of matches between query item and one or more items in data set. Using matching engine for identifying particular article e.g. mug in stream of video signals, medical image both video and ultrasound, deoxy ribo nucleic acid (DNA) and protein synthesis matching, speech recognition, etc., in virtual data applications.

ADVANTAGE - There is no loss of definition in the video data as the method is holistic and covers the entire data set by using different models and measurement for matching.

DESCRIPTION OF DRAWING(S) - The figure shows flowchart illustrating the matching method.

pp; 33 DwgNo 2/2

Title Terms: MATCH; IDENTIFY; QUERY; DATA; SET; ITEM; MATCH; ENGINE;

IDENTIFY; REGION; MATCH; SOLUTION; DETERMINE; REGION; UPPER; PROBABILITY; BOUND; GREATER; THRESHOLD

Derwent Class: T01

International Patent Class (Main): G06F-017/30

International Patent Class (Additional): G06F-017/18 ; G06T-007/00

File Segment: EPI

inventive system.

Image path electronic processing (12)  
Colour space converter from Red-Green-Blue system to an alternative  
such as YCC (16)  
Rendering module for converting colours (18)  
Micro-controller (19)  
Stastical data module (20)  
MIC module for extracting background characteristic data (22)  
RTE module for transforming **pixel** values to remove background  
noise (24)

pp; 23 DwgNo 4/18

Title Terms: BACKGROUND; NOISE; REMOVE; LOW; COST; DIGITAL; COLOUR; COPY;  
APPARATUS

Derwent Class: P84; S06; T01; T04; W02

International Patent Class (Main): G03G-015/00; G03G-021/00; **G06K-015/00 ;**  
**H04N-001/40 ; H04N-001/409 ; H04N-001/58**

International Patent Class (Additional): G03G-015/01; **G06K-009/40 ;**  
**G06K-009/46 ; G06T-005/00 ; G06T-005/40 ; H01Q-005/00; H04N-001/407 ;**  
**H04N-001/46 ; H04N-001/60**

File Segment: EPI; EngPI

41/5/49 (Item 23 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

012572368 \*\*Image available\*\*

WPI Acc No: 1999-378475/199932

XRFX Acc No: N99-283501

**Image processor e.g. facsimile machine, OCR, medical image processor,**  
**vision robot - has digitization process unit which digitizes input image**  
**data by systematic dither method using dummy random-number pattern**

Patent Assignee: NAMCO LTD (NAMC-N)

Inventor: MIYAZAWA A

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11146203	A	19990528	JP 97329605	A	19971113	199932 B
US 6389172	B1	20020514	US 98189767	A	19981110	200239

Priority Applications (No Type Date): JP 97329605 A 19971113

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11146203	A		5	H04N-001/405	
US 6389172	B1			G06K-009/36	

Abstract (Basic): JP 11146203 A

NOVELTY - The image processor has a digitization process unit which digitizes the input image data by the systematic dither method using a dummy random-number pattern generated by a dummy random-number pattern generator. DETAILED DESCRIPTION - An input unit (105) inputs **digital image data**. The threshold values in the dummy random-number **pattern** are **spaced** at equal intervals and are made as components. The minimum value and maximum value of the gradation value that each **pixel** of the input image data can take are not included in each component of the dummy random access pattern. An INDEPENDENT CLAIM is included for a memory medium which stores the program used by the image processor.

USE - None given.

ADVANTAGE - Eliminates occurrence of noise even if the image already digitized is input. Ensures same quality of dither image even when a halftone image is input. DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the image processor. (105) Input unit.

Dwg.1/6

Title Terms: IMAGE; PROCESSOR; FACSIMILE; MACHINE; OCR; MEDICAL; IMAGE;  
PROCESSOR; VISION; ROBOT; DIGITAL; PROCESS; UNIT; DIGITAL; INPUT; IMAGE;  
DATA; SYSTEMATIC; DITHER; METHOD; DUMMY; RANDOM; NUMBER; PATTERN  
Derwent Class: T01; W02

International Patent Class (Main): G06K-009/36 ; H04N-001/405  
International Patent Class (Additional): G06T-001/00 ; G06T-005/00 ;  
H04N-001/403  
File Segment: EPI

41/5/50 (Item 24 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

012422719 \*\*Image available\*\*  
WPI Acc No: 1999-228827/199919  
Related WPI Acc No: 2000-637468  
XRPX Acc No: N99-169320

**Pattern image processing apparatus using scanning electron microscope  
(SEM) for VLSI element**

Patent Assignee: TOSHIBA KK (TOKE )  
Inventor: KOMATSU F; MOTOKI H; TSUBUSAKI K  
Number of Countries: 003 Number of Patents: 004  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5887080	A	19990323	US 95379962	A	19950127	199919 B
JP 7220077	A	19950818	JP 948711	A	19940128	199919
KR 264338	B1	20000816	KR 951766	A	19950128	200134
JP 3490490	B2	20040126	JP 948711	A	19940128	200410

Priority Applications (No Type Date): JP 948711 A 19940128 /  
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5887080	A		11	G06K-009/38	
JP 7220077	A		7	G06T-007/00	
KR 264338	B1			G06T-001/00	
JP 3490490	B2		8	G06T-001/00	Previous Publ. patent JP 7220077

Abstract (Basic): US 5887080 A

NOVELTY - A pattern comparison and detection unit (19) sequentially compares each **pattern area** of a specified **pattern** with reference image **area** and detects the **pattern** having most approximate **area**. The detected image data corresponding to most approximate area value are output through an output terminal (20).

DETAILED DESCRIPTION - An A/D converter (11) converts the analog image data supplied from SEM (1) into **digital data**. A spatial filter (12) smoothens the **digital image data**. A histogram processing unit (13) outputs the summation of **pixels** of smoothed image data corresponding to gray level degree. A threshold value setting unit (14) detects two portions at which the **pixel** number of histogram decreases and sets gray level value of these portions as threshold value (slice level). A three value processing unit (15) classified 3 gray level degrees of an intermediate portion, black portion and white pattern.

A noise reduction unit (16) reduces noises from entire image by magnifying black noises on a white background and by reducing white noises on a black background with respect to three valued image data. A **pattern area** calculating unit (17) specifies a position of patterns for adding a labeling processing to each pattern. A reference image storage unit (18) stores an optimum value as a reference image with respect to an **area** of each **pattern**.

USE - For detecting specified hole pattern within pattern images in which successive hole patterns are repeated on very large scale integration circuit (VLSI).

ADVANTAGE - The comparison and detection of the same or similar patterns repeated in the SEM image are performed by using the **area** of the **pattern** and are not performed on the shape of the pattern, thereby providing a precise detection result high speed.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram of pattern image processing apparatus.

SEM (1)

A/D converter (11)  
Spatial filter (12)  
Histogram processing unit (13)  
Threshold value setting unit (14)  
Processing unit (15)  
Noise reduction unit (16)  
**Pattern area** calculating unit (17)  
Image storage unit (18)  
Pattern detection and comparison unit (19)  
Output terminal (20)  
pp; 11 DwgNo 1/8

Title Terms: PATTERN; IMAGE; PROCESS; APPARATUS; SCAN; ELECTRON; MICROSCOPE  
; SEM; VLSI; ELEMENT

Derwent Class: P84; S03; T04; U11; V05

International Patent Class (Main): G06K-009/38 ; G06T-001/00 ;

G06T-007/00

International Patent Class (Additional): G01B-011/24; G03F-001/08;

G06T-005/00 ; G06T-005/20 ; G06T-007/60

File Segment: EPI; EngPI

41/5/51 (Item 25 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

012130233 \*\*Image available\*\*

WPI Acc No: 1998-547145/199847

XRAM Acc No: C98-164113

XRFX Acc No: N98-426375

**Molecular design support device and calculation of an eigenvalue -  
includes an eigenvalue obtaining device to obtain the eigenvalue and the  
eigenvector in the matrix in the real space described by the  
correlation of the wave function of many electrons**

Patent Assignee: HITACHI LTD (HITA )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10240780	A	19980911	JP 9739185	A	19970224	199847 B

Priority Applications (No Type Date): JP 9739185 A 19970224

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 10240780	A		11	G06F-017/50	

Abstract (Basic): JP 10240780 A

A molecular design support device includes an eigenvalue obtaining device to obtain the eigenvalue and the **eigenvector** in the **matrix** in the real space described by the correlation of the wave function of many electrons, and a device to obtain the minimum energy (stable condition) of the system, the energy at the excited condition, and the wave function of the electrons of the system by means of the eigenvalue and the **eigenvector** in the **matrix** in the real space. The eigenvalue obtaining device comprises: a memory; a device to compose projective action elements to project real space onto a partial **space** from vectors **formed** by unit vectors and random number, and to store the memory; a projective action elements corrective device which creates a **matrix** in the partial space by projecting the **matrix** in the real space by means of the projective action elements stored in the memory to obtain the eigenvalue and the **eigenvector** in the **matrix** in the partial space, which returns the obtained **eigenvector** of the **matrix** in the partial space to the real space using the projective action elements, which obtains the residual between the eigenvalue in the **matrix** in the partial space and the eigenvalue in the **matrix** in the real space, and which corrects the projective action elements stored in the memory according to the residue obtained; and a device to make the projective action elements corrective device repeat the corrective treatment until the eigenvalue in the **matrix** in the real space



becomes an approximate value above a specified standard value.

USE - Used to solve, by the use of a computer, the problems including eigenvalues such as the molecular design using the molecular orbital method.

ADVANTAGE - The convergence of obtaining the eigenvalue can be hastened.

Dwg.2/5

Title Terms: MOLECULAR; DESIGN; SUPPORT; DEVICE; CALCULATE; OBTAIN; DEVICE; OBTAIN; **MATRIX** ; REAL; SPACE; DESCRIBE; CORRELATE; WAVE; FUNCTION; ELECTRON

Derwent Class: E19; J04; T01

International Patent Class (Main): **G06F-017/50**

International Patent Class (Additional): C07B-061/00

File Segment: CPI; EPI

**41/5/52 (Item 26 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

012020924 \*\*Image available\*\*

WPI Acc No: 1998-437834/199837

XRPX Acc No: N98-341104

**Digital image replenishment method, image processing device and data recording medium - extracting pixel in original image space, at every other pixel in vertical direction, and sequencing to form four small pixel spaces before applying replenishment processing**

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU ); MATSUSHITA ELECTRONICS CORP (MATE ); MATSUSHITA DENKI SANGYO KK (MATU ); BOON C S (BOON-I)

Inventor: BOON C S

Number of Countries: 022 Number of Patents: 012

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9834407	A1	19980806	WO 98JP312	A	19980127	199837 B
JP 10276432	A	19981013	JP 9817004	A	19980129	199851
EP 907290	A1	19990407	EP 98900746	A	19980127	199918
			WO 98JP312	A	19980127	
CN 1216199	A	19990505	CN 98800085	A	19980127	199936
TW 384619	A	20000311	TW 98100929	A	19980123	200052
KR 2000064833	A	20001106	WO 98JP312	A	19980127	200128
			KR 98707818	A	19980930	
EP 907290	B1	20010926	EP 98900746	A	19980127	200157
			WO 98JP312	A	19980127	
DE 69801794	E	20011031	DE 601794	A	19980127	200173
			EP 98900746	A	19980127	
			WO 98JP312	A	19980127	
ES 2162411	T3	20011216	EP 98900746	A	19980127	200206
KR 318060	B	20020219	WO 98JP312	A	19980127	200257
			KR 98707818	A	19980930	
EP 907290	B8	20020904	EP 98900746	A	19980127	200266
			WO 98JP312	A	19980127	
US 20040042673	A1	20040304	WO 98JP312	A	19980127	200417
			US 99155398	A	19990202	
			US 2003645906	A	20030822	

Priority Applications (No Type Date): JP 9716112 A 19970130

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9834407 A1 J 76 H04N-007/52

Designated States (National): CN KR US

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC

NL PT SE

JP 10276432 A 32 H04N-007/24

EP 907290 A1 E H04N-007/30 Based on patent WO 9834407

Designated States (Regional): DE ES FR GB IT

CN 1216199 A H04N-007/52

TW 384619 A H04N-007/30  
 KR 2000064833 A H04N-007/52 Based on patent WO 9834407  
 EP 907290 B1 E H04N-007/30 Based on patent WO 9834407  
 Designated States (Regional): DE ES FR GB IT  
 DE 69801794 E H04N-007/30 Based on patent EP 907290  
 Based on patent WO 9834407  
 ES 2162411 T3 H04N-007/30 Based on patent EP 907290  
 KR 318060 B H04N-007/52 Previous Publ. patent KR 2000064833  
 Based on patent WO 9834407  
 EP 907290 B8 E H04N-007/30 Based on patent WO 9834407  
 Designated States (Regional): DE ES FR GB IT  
 US 20040042673 A1 G06K-009/36 Div ex application WO 98JP312  
 Div ex application US 99155398

Abstract (Basic): WO 9834407 A

A digital image replenishment method involves extracting a **pixel** in an original image space (301), corresponding to a **digital image signal** inputted, at every other **pixel**, in the vertical direction. Several extracted **pixels** are sequenced to **form** four small **pixel spaces** (401 to 404), and the replenishment processing for a **pixel** value is applied to the small image spaces. The replenishment processing of a **pixel** value is not applied to an original image space having the low correlation of a **pixel** value between the adjacent scanning lines, but to several small image spaces having the high correlation of a **pixel** value between the adjacent scanning lines. The small image spaces, to which the replenishment processing is applied, have a high correlation of the **pixel** values. For this reason, the introduction of a high frequency component to a **digital image signal** corresponding to an interlace signal, can be avoided by replenishment processing in the interlace image of the large movement of an object. Accordingly, there is an effect that a difference coding processing, or a differential decoding processing for an interlace image, can be performed with high coding efficiency while suppressing its degradation due to the replenishment processing.

Dwg.2/20

Title Terms: DIGITAL; IMAGE; REPLENISH; METHOD; IMAGE; PROCESS; DEVICE; DATA; RECORD; MEDIUM; EXTRACT; **PIXEL**; ORIGINAL; IMAGE; SPACE; **PIXEL**; VERTICAL; DIRECTION; SEQUENCE; FORM; FOUR; **PIXEL**; SPACE; APPLY; REPLENISH; PROCESS

Derwent Class: W02; W04

International Patent Class (Main): G06K-009/36 ; H04N-007/24 ;

H04N-007/30 ; H04N-007/52

International Patent Class (Additional): H03M-007/30; H03M-007/36;

H04N-001/41 ; H04N-007/50

File Segment: EPI

41/5/53 (Item 27 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011950716 \*\*Image available\*\*

WPI Acc No: 1998-367626/199832

XRPX Acc No: N98-287603

**Image processor for industrial product shape inspection apparatus - classifies detected image into noise content pixel and original pixel based on calculated histogram and replaces noise content pixels with suitable original pixels**

Patent Assignee: HITACHI LTD (HITA )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10143653	A	19980529	JP 96300035	A	19961112	199832 B

Priority Applications (No Type Date): JP 96300035 A 19961112

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

Abstract (Basic): JP 10143653 A

The processor has an image detector (101) which identifies the image of an object to be tested. The detected image is stored in an image storing memory (104). A noise removal unit (107) removes the noise component of stored image. An area division unit (109) divides the image into several areas based on its illuminance distribution.

**Histogram calculation** is performed and detected image is classified into noise content image **pixels** and original **pixels** based on calculated histogram. Then, the noise content image **pixels** are removed by a noise filter and is replaced by suitable original **pixels**.

ADVANTAGE - Removes noise reliably.

Dwg. 1/10

Title Terms: IMAGE; PROCESSOR; INDUSTRIAL; PRODUCT; **SHAPE** ; INSPECT; APPARATUS; CLASSIFY; DETECT; IMAGE; NOISE; CONTENT; **PIXEL** ; ORIGINAL; **PIXEL** ; BASED; CALCULATE; HISTOGRAM; REPLACE; NOISE; CONTENT; **PIXEL** ; SUIT; ORIGINAL; **PIXEL**

Derwent Class: T01

International Patent Class (Main): G06T-005/00

International Patent Class (Additional): G06T-007/00 ; G06T-009/20 ;

H04N-001/409

File Segment: EPI

41/5/54 (Item 28 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011081142 \*\*Image available\*\*

WPI Acc No: 1997-059066/199706

XRPX Acc No: N97-048923

**Video signal coding method for HDTV - involves shifting of pixel in selected area at which differential pixel values is more than threshold value to position specified by each motion vector**

Patent Assignee: DAEWOO ELECTRONICS CO LTD (DAEW-N)

Inventor: LEE M

Number of Countries: 004 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 8307873	A	19961122	JP 95202865	A	19950717	199706 B
US 5612743	A	19970318	US 95498553	A	19950705	199717
CN 1135148	A	19961106	CN 95109998	A	19950713	199803
KR 171154	B1	19990320	KR 9510585	A	19950429	200042

Priority Applications (No Type Date): KR 9510585 A 19950429

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8307873	A		9	H04N-007/32	
US 5612743	A		14	H04N-007/133	
CN 1135148	A			H04N-007/32	
KR 171154	B1			H04N-007/24	

Abstract (Basic): JP 8307873 A

The method involves detecting motion vector of a **pixel** at present frame. A feature point is selected according to the movement of the target object between the present frame and the standard frame which is used for coding the **digital video signal**. The **pixel** value obtained from standard frame is subtracted from the **pixel** value at present frame. The differential **pixel** value and the differential threshold value (TH) per **pixel** are compared. The area in which differential **pixel** value is more than the threshold value, is selected.

The **pixel** in the selected area is shifted to a position which is specified by each motion vector. An edge point is detected from a standard frame. One or more processing areas are specified from the

shifted area, where an overlap with the position of edge point is carried out. A first grid is formed on the standard frame. A second grid corresponding to each processing area is formed. A grid point is positioned between an intermediate point of first grid formed in horizontal and vertical position.

ADVANTAGE - Performs coding of video signal effectively. Decodes video signal correctly.

Dwg.1/9

Title Terms: VIDEO; SIGNAL; CODE; METHOD; HDTV; SHIFT; **PIXEL** ; SELECT; AREA; DIFFERENTIAL; **PIXEL** ; VALUE; MORE; THRESHOLD; VALUE; POSITION; SPECIFIED; MOTION; VECTOR

Derwent Class: W02; W04

International Patent Class (Main): **H04N-007/133 ; H04N-007/24 ;**

**H04N-007/32**

File Segment: EPI

**41/5/55 (Item 29 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011025891 \*\*Image available\*\*

WPI Acc No: 1997-003815/199701

XRPX Acc No: N97-003394

Pattern recognition appts for recognition processing of character data  
- in which image judging unit judges correct recognition image based on  
matching degree calculated by matching degree calculation unit

Patent Assignee: MITSUBISHI JUKOGYO KK (MITO )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 8272901	A	19961018	JP 9574126	A	19950330	199701 B

Priority Applications (No Type Date): JP 9574126 A 19950330

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8272901	A		8	G06K-009/48	

Abstract (Basic): JP 8272901 A

The appts has a data entry unit (2) through which a recognition image is fed. A normalization unit (3) performs normalization of the image fed through the data entry unit. An image quantization unit (4) quantizes the normalization image **formed** by the normalization unit to a predetermined level. An image shaping unit (5) performs predetermined processing on the quantization image. A differential filter calculation unit (6) calculates the inclination and strength of the outline ray in the image **formed** by the image shaping unit.

A load direction index **histogram calculation** unit (7) calculates the amount of the load direction index histogram features using the calculated output of the differential filter calculation unit. A matching degree calculation unit (8) calculates the matching degree between the calculated amount of load direction index histogram features and multiple kinds of reference **patterns**. An image judging unit (9) judges the correct recognition image based on the matching degree calculated by the matching degree calculation unit.

ADVANTAGE - Realises highly precise **pattern** recognition. Reduces influence of blur and splitting of recognition image due to digitization mistake.

Dwg.1/8

Title Terms: **PATTERN** ; RECOGNISE; APPARATUS; RECOGNISE; PROCESS; CHARACTER ; DATA; IMAGE; JUDGEMENT; UNIT; JUDGEMENT; CORRECT; RECOGNISE; IMAGE; BASED; MATCH; DEGREE; CALCULATE; MATCH; DEGREE; CALCULATE; UNIT

Derwent Class: T04

International Patent Class (Main): **G06K-009/48**

International Patent Class (Additional): **G06K-009/38 ; G06K-009/50**

File Segment: EPI

41/5/56 (Item 30 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

010772252 \*\*Image available\*\*

WPI Acc No: 1996-269205/199628

XPX Acc No: N96-226242

Digital video data memory addressing circuit for MPEG video  
processing - directly associating lines & columns of 1st data block with  
those of 1st storage area, dividing remaining storage area into  
rectangular sub-regions, and selecting sizes of sub-regions for storage  
of exactly binary word

Patent Assignee: SICAN GES SILIZIUM-ANWENDUNGEN & CAD/CAT (SICA-N); SCI  
WORX GMBH (SCWO-N)

Inventor: FIEDRICH S; GRUEGER K; MUELLER G; SCHNEIDER U

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4442957	A1	19960605	DE 4442957	A	19941202	199628 B
DE 4442957	C2	20020606	DE 4442957	A	19941202	200239

Priority Applications (No Type Date): DE 4442957 A 19941202

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4442957	A1	10		G11C-011/407	
DE 4442957	C2			G11C-007/00	

Abstract (Basic): DE 4442957 A

The memory address space is arranged as a main area with linear  
matrix form X-Y-addressing and multiple rectangular sub-areas with  
two-stage addressing. The horizontal or vertical memory size of each  
area is chosen so that exactly  $2n$  elements, where  $n$  is integral, may be  
stored in a column or row.

The data ordering in the sub-areas is such that it may be selected  
using a comparator, so that in addition, multiple comparators may be  
used.

Dwg.9/9

Title Terms: DIGITAL; VIDEO; DATA; MEMORY; ADDRESS; CIRCUIT; VIDEO; PROCESS  
; ASSOCIATE; LINE; COLUMN; DATA; BLOCK; STORAGE; AREA; DIVIDE; REMAINING;  
STORAGE; AREA; RECTANGLE; SUB; REGION; SELECT; SIZE; SUB; REGION; STORAGE  
; EXACT; BINARY; WORD

Derwent Class: T01; U14

International Patent Class (Main): G11C-007/00; G11C-011/407

International Patent Class (Additional): G06F-012/04 ; G06T-001/60

File Segment: EPI

41/5/57 (Item 31 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

010604809 \*\*Image available\*\*

WPI Acc No: 1996-101762/199611

XPX Acc No: N96-085192

Image area division device for remote sensing unit - has memory for  
storing image subjected to area division by area division circuit

Patent Assignee: MITSUBISHI JUKOGYO KK (MITO )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 8007099	A	19960112	JP 94133202	A	19940615	199611 B

Priority Applications (No Type Date): JP 94133202 A 19940615

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8007099	A	6		G06T-007/00	

Abstract (Basic): JP 8007099 A

The device includes A-D converters (3-1, 3-2) to convert analog video signals (2-1,2-2) picked up by an image pick-up device (1-1,1-2), into digital equivalents. The **digital image data** (4-1,4-2) is subjected to image processing and the processed data is stored in respective frame memories (5-1,5-2), temporarily. The **digital image data** (6-1,6-2) are fed to standard deviation calculation circuits (7-1,7-2). The circuits compute standard deviation (8-1,8-2) of brightness, for each **digital signal**.

A deviation limit value determination circuit (9) determines the limit value of the split area for every digital usage. The division limit value (10) is compared with absolute value of brightness difference value between **pixels**. If the absolute value is less than the limit value, the **pixels** are unified to **form** a single **area**. A area division circuit (11) is operated and the area division image (12) is stored in an image memory (13).

ADVANTAGE - Enables simultaneous processing of images obtained from multiple sensors. Eases matching of actual scene and obtained area division image.

Dwg.1/6

Title Terms: IMAGE; AREA; DIVIDE; DEVICE; REMOTE; SENSE; UNIT; MEMORY; STORAGE; IMAGE; SUBJECT; AREA; DIVIDE; AREA; DIVIDE; CIRCUIT

Derwent Class: T01; W04

International Patent Class (Main): G06T-007/00

International Patent Class (Additional): G06T-001/00

File Segment: EPI

41/5/58 (Item 32 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010460875 \*\*Image available\*\*

WPI Acc No: 1995-362194/199547

**Black pattern extraction method - extracting black portion in specified region by optical dark point extraction part**

Patent Assignee: NEC CORP (NIDE )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 7234936	A	19950905	JP 9424567	A	19940222	199547 B

Priority Applications (No Type Date): JP 9424567 A 19940222

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 7234936	A		7 G06T-007/00	

Abstract (Basic): JP 7234936 A

The black **pattern** extraction method involves the reception of multiple colour monochrome image from an image input part (1). The density histogram of each colour is calculated by a density **histogram calculation** unit (2). The variance of the density histogram of a area specified previously is counted by a distributed colouration part (3). The variance calculation is based on the maximum density histogram of the image. The background together with the black portion of the specified area are extracted by a background, optical dark point, extraction part (6) respectively.

A second density **histogram calculation** part calculates the density histogram of other colour except the first colour. Again, the variance of each density histogram is calculated by a second density **histogram calculation** part (7), based on minimum density histogram of the image. The black portion in the specified region are extracted by an optical dark point extraction part (11).

ADVANTAGE - Extracts black **pattern** automatically and correctly. Performs printed character inspection and recognition in short time. Improves execution speed.

Dwg.1/7

Title Terms: BLACK; **PATTERN** ; EXTRACT; METHOD; EXTRACT; BLACK; PORTION;  
SPECIFIED; REGION; OPTICAL; DARK; POINT; EXTRACT; PART  
Derwent Class: T01; T04  
International Patent Class (Main): **G06T-007/00**  
International Patent Class (Additional): **G06K-009/20 ; G06T-005/00**  
File Segment: EPI

41/5/59 (Item 33 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010366769 \*\*Image available\*\*

WPI Acc No: 1995-268131/199535

XRPX Acc No: N95-206116

**Detection of photograph in digitally scanned images - by electronically testing data representing each cell of image and determining area built up from adjoining cells containing photographic data**

Patent Assignee: HEWLETT-PACKARD CO (HEWP )

Inventor: ZUNIGA O A

Number of Countries: 003 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
NL 9402162	A	19950717	NL 942162	A	19941220	199535 B
JP 7231388	A	19950829	JP 94318778	A	19941221	199543
US 5546474	A	19960813	US 93171551	A	19931221	199638
NL 194897	B	20030203	NL 942162	A	19941220	200317
NL 194897	C	20030604	NL 942162	A	19941220	200360

Priority Applications (No Type Date): US 93171551 A 19931221

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
NL 9402162	A		57	G06K-009/52	
JP 7231388	A		17	H04N-001/40	
US 5546474	A		33	G06K-009/34	
NL 194897	B			G06K-009/52	
NL 194897	C			G06K-009/52	

Abstract (Basic): NL 9402162 A

The detection involves feeding data from each cell to a quantising circuit (1908). The quantising circuit output is fed to a characteristic determining module (1912). The characteristic determination signal (1940) is fed to a cell classification module. It determines whether each cell is part of a photographic or non-photographic image. The module output is fed to an 'area growth' module (1920) which determines the boundaries of the photographic image.

The output (1932) from a digitising scanner (1904) represents the image on the scanned item. The scanned item includes **areas** of text, geometrically **shaped** graphics images and photographs. The scanned image **digital data** represents the intensity of the reflections from many thousands of small areas, or cells, of the original.

ADVANTAGE - Involves no human judgement in classifying image data.

Dwg.19/19

Title Terms: DETECT; PHOTOGRAPH; DIGITAL; SCAN; IMAGE; ELECTRONIC; TEST;  
DATA; REPRESENT; CELL; IMAGE; DETERMINE; AREA; BUILD; UP; ADJOIN; CELL;  
CONTAIN; PHOTOGRAPH; DATA

Derwent Class: T01; T04

International Patent Class (Main): **G06K-009/34 ; G06K-009/52 ;**

**H04N-001/40**

International Patent Class (Additional): **G06F-007/60 ; G06K-009/20 ;**

**G06K-009/56 ; G06T-001/00**

File Segment: EPI

41/5/60 (Item 34 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

010347699 \*\*Image available\*\*

WPI Acc No: 1995-249013/199533

**Similar pattern reference appts. - calculates second similar pattern and selects pattern exceeding predetermined value which is transmitted to terminal equipment through communication channel**

Patent Assignee: TOYO JOHO SYSTEM KK (TOJO-N)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 7152911	A	19950616	JP 93301531	A	19931201	199533 B
JP 3227289	B2	20011112	JP 93301531	A	19931201	200174

Priority Applications (No Type Date): JP 93301531 A 19931201

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 7152911	A	20	G06T-007/00		
JP 3227289	B2	20	G06T-007/00		Previous Publ. patent JP 7152911

Abstract (Basic): JP 7152911 A

The appts consists of a sector form division device (45) which divides the object **pattern** in a rectangle **area** into equal unit angle pattern. The pattern digitization device (40) output **digital data** indicating the type of pattern for each **pixel**. An amount calculating device (42) calculates the number of pattern elements in each rectangle area. A calculating device (48) reads the amount of rectangle **area** in a circle **pattern**. The correlation between object pattern and circle pattern is computed. Another calculating device (46) calculates the number of pattern elements rejected in each sector area. A terminal side transmitter (47) transmits the degree of correlation between the object and circle pattern and amount of sector **area** in object **pattern** to host side appts (100).

The first similarity calculating device (102) calculates the first similarity between reference and circle pattern and selects the pattern which is exceeding the predetermined value. First correlation calculating device (107) calculates degree of correlation between the sector area of first selection and object pattern using which a second similarity is calculated by calculating device (108). The second pattern is selected from a pattern exceeding a predetermined value. The second selection pattern is read from memory (101) and is transmitted to terminal equipment (50) through a communication channel. The receiving side terminal (49) receives it and is sent out to an output device (44).

ADVANTAGE - Searches similar pattern quickly. Reduces amount of data to be transmitted.

Dwg.1/24

Title Terms: SIMILAR; PATTERN; REFERENCE; APPARATUS; CALCULATE; SECOND;

SIMILAR; PATTERN; SELECT; PATTERN; PREDETERMINED; VALUE; TRANSMIT;

TERMINAL; EQUIPMENT; THROUGH; COMMUNICATE; CHANNEL

Derwent Class: T01; T04

International Patent Class (Main): G06T-007/00

International Patent Class (Additional): G06F-017/30

File Segment: EPI

41/5/61 (Item 35 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010123138 \*\*Image available\*\*

WPI Acc No: 1995-024389/199504

XRPX Acc No: N95-018910

**Image frame detection method in automated photographic film handling - identifying locations of respective image frames contained on photographic film strip by storing scan-line data to generate predictor**



**space for identifying frame locations**

Patent Assignee: EASTMAN KODAK CO (EAST )  
Inventor: MITCH J  
Number of Countries: 005 Number of Patents: 006  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 629903	A2	19941221	EP 94109121	A	19940614	199504	B
US 5414779	A	19950509	US 9376592	A	19930614	199524	
JP 7121686	A	19950512	JP 94130694	A	19940613	199528	
EP 629903	A3	19950712	EP 94109121	A	19940614	199612	
EP 629903	B1	20030312	EP 94109121	A	19940614	200319	
DE 69432239	E	20030417	DE 632239	A	19940614	200333	
			EP 94109121	A	19940614		

Priority Applications (No Type Date): US 9376592 A 19930614

Cited Patents: No-SR.Pub; DE 3714020; EP 516055

**Patent Details:**

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

EP 629903	A2	E	31	G03B-027/62	
-----------	----	---	----	-------------	--

Designated States (Regional): DE FR GB

US 5414779	A	22	G06K-009/00
------------	---	----	-------------

JP 7121686	A	20	G06T-001/00
------------	---	----	-------------

EP 629903	A3		G03B-027/62
-----------	----	--	-------------

EP 629903	B1	E	G03B-027/62
-----------	----	---	-------------

Designated States (Regional): DE FR GB

DE 69432239	E		G03B-027/62	Based on patent EP 629903
-------------	---	--	-------------	---------------------------

**Abstract (Basic): EP 629903 A**

The method of detecting the locations of respective image frames contained on an image recording medium involves scanning the image recording medium to produce data representing the contents of successive scan lines of the image recording medium, processing the scan data to generate a predictor space for frame identifiers and producing a series of thresholds based upon the predictor space and a series of predetermined statistics.

All the well formed image frames are determined based upon the thresholds and the determined well formed image frames are used to produce frame statistics which are used to detect the location of image frames other than the well formed image frames.

USE/ADVANTAGE - Frame detection for locating positions of respective images. Allows greater sensitivity.

Dwg.1/26

Title Terms: IMAGE; FRAME; DETECT; METHOD; AUTOMATIC; PHOTOGRAPH; FILM;  
HANDLE; IDENTIFY; LOCATE; RESPECTIVE; IMAGE; FRAME; CONTAIN; PHOTOGRAPH;  
FILM; STRIP; STORAGE; SCAN; LINE; DATA; GENERATE; PREDICT; SPACE;  
IDENTIFY; FRAME; LOCATE

Derwent Class: P82; S06; T04

International Patent Class (Main): G03B-027/62; G06K-009/00 ; G06T-001/00

International Patent Class (Additional): G01B-011/00; G06T-007/60 ;

H04N-005/76

File Segment: EPI; EngPI

41/5/62 (Item 36 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010006352 \*\*Image available\*\*

WPI Acc No: 1994-274063/199434

XRPX Acc No: N94-215979

Picture processing device for e.g. optical character reader - provides skew angle compensation by forming histogram based on projected coordinates of end point of rectangle domain, and detecting field of document and skew angle from end point

Patent Assignee: RICOH KK (RICO )

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 6203202	A	19940722	JP 92360273	A	19921228	199434 B
JP 3303246	B2	20020715	JP 92360273	A	19921228	200253

Priority Applications (No Type Date): JP 92360273 A 19921228

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 6203202	A		11	G06K-009/20	
JP 3303246	B2		11	G06K-009/20	Previous Publ. patent JP 6203202

Abstract (Basic): JP 6203202 A

The picture processor uses connected component extraction part (3) to investigate the connectivity of a predetermined **pixel** in image data and outputs a connected component **pattern**. A rectangular domain to extracted connected component is set up by a domain setting part (4). A **histogram calculation** part (5) assumes range for image data and projects the coordinates for rectangular domain.

Based on the histogram projection, a column detection processor (6) detects the column field of a document. A skew angle detector (7) detects the skew angle from the end point of detected column, using the rectangular domain data. A skew compensation part (3) rectifies the skew angle.

ADVANTAGE - Provides exact compensation for skew. Performs accurate character recognition. Performs correction operation with fewer number of steps. Improves device stability. Judges skew angle with high degree of reliability.

Dwg.1/10

Title Terms: PICTURE; PROCESS; DEVICE; OPTICAL; CHARACTER; READ; SKEW; ANGLE; COMPENSATE; **FORMING**; HISTOGRAM; BASED; PROJECT; COORDINATE; END; POINT; RECTANGLE; DOMAIN; DETECT; FIELD; DOCUMENT; SKEW; ANGLE; END; POINT

Derwent Class: T01; T04; W02

International Patent Class (Main): **G06K-009/20**

International Patent Class (Additional): **G06K-009/32 ; H04N-001/387**

File Segment: EPI

41/5/63 (Item 37 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009999464 \*\*Image available\*\*

WPI Acc No: 1994-267175/199433

XRPX Acc No: N94-210394

**Picture processing device for edge enhancement of image data - performs data processing of pictorial image data with reference to pixels detected, by judgement of appropriately matched pattern in pictorial image**

Patent Assignee: MINOLTA CAMERA KK (MIOC )

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 6195457	A	19940715	JP 92227058	A	19920826	199433 B
JP 3049959	B2	20000605	JP 92227058	A	19920826	200032

Priority Applications (No Type Date): JP 92227058 A 19920826

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 6195457	A		13	G06F-015/68	
JP 3049959	B2		13	G06T-005/00	Previous Publ. patent JP 6195457

Abstract (Basic): JP 6195457 A

The device uses a 5 x 5 **matrix** memory (1) storing an image. Depending on the edge enhancement, the memory contents are passed either to 5 x 5 limit-value circulation device (2) or 5 x 5 limit-value circulation device (3). The corresp outputs pass to sections performing

digitisation. These sections are digitisation devices (4,5). Data selector (8) selects a pattern for edge improvements at the output of pattern matching part (7). Output from data selector is processed in a laplacian wave filter (10) to eliminate excessively matched **pattern areas** and then passed on to amount circulation part of edge enhancement (11). Here final pictorial image of data fed in is produced with appropriate **pixel** distribution.

The judgement of data to be processed depends on the selection of **digital** pattern by **data** selector and **matrix** elements copied from 5 x 5 **matrix** memory. Further edge enhancement depends on location of standard **pixel** configuration.

ADVANTAGE - Provides simple circuitry and picture clarity.

Dwg.1/19

Title Terms: PICTURE; PROCESS; DEVICE; EDGE; ENHANCE; IMAGE; DATA; PERFORMANCE; DATA; PROCESS; PICTURE; IMAGE; DATA; REFERENCE; **PIXEL** ; DETECT; JUDGEMENT; APPROPRIATE; MATCH; PATTERN; PICTURE; IMAGE

Derwent Class: T01; W02

International Patent Class (Main): G06F-015/68 ; G06T-005/00

International Patent Class (Additional): G06F-015/70 ; G06T-009/20 ;

H04N-001/40 ; H04N-001/409

File Segment: EPI

41/5/64 (Item 38 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009787605 \*\*Image available\*\*

WPI Acc No: 1994-067458/199409

XRPX Acc No: N94-052814

**Graphic pattern generating for, e.g. preparation of catalogue pages - defining colour content of seed pixels at selected positions within pattern area and generates successively lower resolution versions in accordance with predetermined algorithm**

Patent Assignee: FUJIFILM ELECTRONIC IMAGING LTD (FUJF ); CROSFIELD ELECTRONICS LTD (CROE )

Inventor: KIRK R A

Number of Countries: 003 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 584941	A1	19940302	EP 93305816	A	19930723	199409 B
US 5471566	A	19951128	US 93106568	A	19930816	199602
EP 584941	B1	19981125	EP 93305816	A	19930723	199851
DE 69322216	E	19990107	DE 622216	A	19930723	199907
			EP 93305816	A	19930723	

Priority Applications (No Type Date): GB 9217361 A 19920814

Cited Patents: 02Jnl.Ref; GB 2207029

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

EP 584941	A1	E	10	G06F-015/72	
-----------	----	---	----	-------------	--

Designated States (Regional): DE GB

US 5471566	A		9	G06F-015/62	
------------	---	--	---	-------------	--

EP 584941	B1	E		G06T-011/40	
-----------	----	---	--	-------------	--

Designated States (Regional): DE GB

DE 69322216	E			G06T-011/40	Based on patent EP 584941
-------------	---	--	--	-------------	---------------------------

Abstract (Basic): EP 584941 A

The method of generating a graphics pattern involves defining the colour content of **pixels** at selected positions within the **pattern area** which are to influence the resultant pattern. The remaining **pixels** at the first high resolution are considered as having undefined colour content. Successively lower spatial resolution versions of the **pattern area** are generated in accordance with a predetermined algorithm which when sufficient defined **pixels** exist in the next higher resolution version neighbouring an undefined **pixel** interpolates colour data for the corresponding lower resolution **pixel**

, until all **pixels** of a lower resolution version contain defined data.

A version of the pattern data is generated at the first high resolution and the content of at least the previously undefined first high resolution **pixels** is obtained from the lower resolution versions of the **pattern area**.

USE/ADVANTAGE - Useful for generating shadows around objects within image or image portion, and enabling other features to be inserted. Enables saps formed by scratches to be filled.

Dwg.1/10

Title Terms: GRAPHIC; PATTERN; GENERATE; PREPARATION; CATALOGUE; PAGE; DEFINE; COLOUR; CONTENT; SEED; **PIXEL**; SELECT; POSITION; PATTERN; AREA; GENERATE; SUCCESSION; LOWER; RESOLUTION; VERSION; ACCORD; PREDETERMINED; ALGORITHM

Derwent Class: T01

International Patent Class (Main): **G06F-015/62** ; **G06F-015/72** ;

**G06T-011/40**

File Segment: EPI

**41/5/65** (Item 39 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009673732 \*\*Image available\*\*

WPI Acc No: 1993-367285/199346

XPX Acc No: N93-283516

**Amorphous silicon edge orientation detector array - uses orientation detector array in pattern recognition system in computerised artificial vision**

Patent Assignee: NAT SCI COMMITTEE (NASC-N); NAT SCI COUNCIL (NASC-N)

Inventor: LII S; SAH W; LEE S

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
TW 211071	A	19930811	TW 92106972	A	19920903	199346. B
US 5351309	A	19940927	US 92906737	A	19920630	199438 N

Priority Applications (No Type Date): TW 92106972 A 19920903; US 92906737 A 19920630

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

TW 211071	A		37	G06F-015/62	
-----------	---	--	----	-------------	--

US 5351309	A		26	G06K-009/48	
------------	---	--	----	-------------	--

Abstract (Basic): TW 211071 A

The pattern recognition system includes an image detector, which consists of photo detector array for detecting images. Each photo detector consists of four photo detection elements of equivalent **area**. Each **forms** a trapezoid which has a bottom and a top, which is parallel to or shorter than the bottom, and a pair of equal sides which intercept the bottom at 45 degrees.

The four detection elements are arranged so the four bottoms form a square and the four tops form a second square to circle as photo detection area. When the photo elements are illuminated by light beams representing image, they generate **electronic signals** proportional to the illuminated light beams. An edge detection device, which responds to the **electronic signals** generated and extracts out edges of the image detected by the image detector. An orientation determination device responds to the **electronic signals**, which are generated by the photo detector array, and the edge detection device to determine the orientation of the extracted image edge.

USE - For computerised artificial vision.

Dwg.1/17

Title Terms: AMORPHOUS; SILICON; EDGE; ORIENT; DETECT; ARRAY; ORIENT;

DETECT; ARRAY; PATTERN; RECOGNISE; SYSTEM; COMPUTER; ARTIFICIAL; VISION

Derwent Class: T01; T04; U13

International Patent Class (Main): **G06F-015/62** ; **G06K-009/48**

International Patent Class (Additional): G06K-009/20 ; H01L-031/042  
File Segment: EPI

41/5/66 (Item 40 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

009281434 \*\*Image available\*\*  
WPI Acc No: 1992-408845/199250  
XRPX Acc No: N92-311823

Lines doubling method for video signal - doubles video signal lines in digital form using motion detector and median filter for pixel interpolation so stationary picture area odd field is formed of original odd and even lines

Patent Assignee: NOKIA KULUTUSELEKTRONIIKKA OY (OYNO ); SALORA OY (SALO-N)  
Inventor: KARLSSON M; POHJALA P  
Number of Countries: 008 Number of Patents: 006  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 517385	A2	19921209	EP 92304384	A	19920514	199250 B
FI 9102698	A	19921206	FI 912698	A	19910605	199310
FI 88663	B	19930226	FI 912698	A	19910605	199314
EP 517385	A3	19921216				199344
EP 517385	B1	19970102	EP 92304384	A	19920514	199706
DE 69216298	E	19970213	DE 616298	A	19920514	199712
			EP 92304384	A	19920514	

Priority Applications (No Type Date): FI 912698 A 19910605  
Cited Patents: No-SR.Pub; EP 372774; EP 391094; GB 2114396; US 4620225  
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 517385	A2	E	7	H04N-005/44	
Designated States (Regional): DE ES FR GB IT NL SE					
FI 88663	B			H04N-007/01	Previous Publ. patent FI 9102698
EP 517385	B1	E	8	H04N-005/44	
Designated States (Regional): DE ES FR GB IT NL SE					
DE 69216298	E			H04N-005/44	Based on patent EP 517385
FI 9102698	A			H04N-007/01	

Abstract (Basic): EP 517385 A

The method doubles the number of lines of a video signal received in the form of sequential samples. The original digitised picture area consists of fields formed by odd lines (A1,A2,A3,...) and even lines (B1,B2,B3,...). A motion detector is used to detect motion in the picture area. In a stationary picture area the odd field (A1,B1,A2,B2,...) is alternately formed of original odd and even lines, starting with the first odd line (A1).

The even field is formed of lines, each obtained by interpolation from two lines, of which one is an original odd line and the other is an original even line, starting in sequence from the first odd line and the first even line (B1). In a moving picture area the odd field is formed of original odd lines and between each two original lines is placed a new line obtained by interpolation from these two lines.

USE/ADVANTAGE - Converting picture with 625 lines into picture with 1250 lines retaining good picture quality.

Dwg.2/3

Title Terms: LINE; DOUBLE; METHOD; VIDEO; SIGNAL; DOUBLE; VIDEO; SIGNAL; LINE; DIGITAL; FORM; MOTION; DETECT; MEDIAN; FILTER; PIXEL ; INTERPOLATION; SO; STATIONARY; PICTURE; AREA; ODD; FIELD; FORMING; ORIGINAL; ODD; EVEN; LINE

Derwent Class: W03

International Patent Class (Main): H04N-005/44 ; H04N-007/01  
International Patent Class (Additional): H04N-011/00  
File Segment: EPI

41/5/67 (Item 41 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

009074356 \*\*Image available\*\*

WPI Acc No: 1992-201775/199225

XRPX Acc No: N92-152705

**Radiographic image processing appts. - uses fluorescent panel to  
accumulator X-ray light irradiated through subject and stimulates  
fluorescent panel to photoelectric converter and ADC with digital  
signal analysed for each pixel**

Patent Assignee: KONICA CORP (KONS )

Inventor: NAGATSUKA S; TSUCHINO H

Number of Countries: 003 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 490532	A2	19920617	EP 91311026	A	19911128	199225 B
EP 490532	A3	19930414	EP 91311026	A	19911128	199351
US 5283736	A	19940201	US 91798519	A	19911126	199406
EP 490532	B1	19960306	EP 91311026	A	19911128	199614
DE 69117692	E	19960411	DE 617692	A	19911128	199620
			EP 91311026	A	19911128	

Priority Applications (No Type Date): JP 90325605 A 19901129

Cited Patents: No-SR.Pub; EP 150834; EP 154131; US 4602156; US 4970393

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

EP 490532	A2	E	19	G01T-001/29	
-----------	----	---	----	-------------	--

Designated States (Regional): DE GB

US 5283736	A		18	G06F-015/00	
------------	---	--	----	-------------	--

EP 490532	B1	E	20	G06T-005/00	
-----------	----	---	----	-------------	--

Designated States (Regional): DE GB

DE 69117692	E			G06T-005/00	Based on patent EP 490532
-------------	---	--	--	-------------	---------------------------

EP 490532	A3			G01T-001/29	
-----------	----	--	--	-------------	--

Abstract (Basic): EP 490532 A

The processing apparatus comprises an X-ray irradiation unit (1) to emit X-rays which are transmitted through a subject onto a radiation image conversion panel (3) on which there is a stimulation fluorescent layer. A portion of excitation light energy is accumulated in the fluorescent substance according to the amount irradiated. Stimulation light, e.g., visible or infrared light from a source (4) is scanned across the radiation image conversion panel which then emits fluorescent light proportional to the accumulated energy. This light is passed through a filter (5) into a photoelectric converter (6) whose output current signal is converted in analog to digital converter (7) to produce an output which is processed in an image processing apparatus (8).

The processor analyses the digital information from individual **pixels** to obtain a density pattern of the image giving each **pixel** a label and providing coded information for each **pixel** using a system of comparison with threshold values. The digital output from the processing apparatus is passed to a computer and is output as a hard copy in an output device (15) for recording on a film.

ADVANTAGE - Provides optimum image processing data under conditions of varying photographing conditions.

Dwg.1/12

Title Terms: RADIOGRAPHIC; IMAGE; PROCESS; APPARATUS; FLUORESCENT; PANEL; ACCUMULATOR; X-RAY; LIGHT; IRRADIATE; THROUGH; SUBJECT; STIMULATING; FLUORESCENT; PANEL; PHOTOELECTRIC; CONVERTER; DIGITAL; SIGNAL; ANALYSE; **PIXEL**

Derwent Class: S03; S05; W02

International Patent Class (Main): G01T-001/29; G06F-015/00 ; G06T-005/00

International Patent Class (Additional): G06T-005/40

File Segment: EPI

41/5/68 (Item 42 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

008476152 \*\*Image available\*\*  
WPI Acc No: 1990-363152/199049  
XRPX Acc No: N90-277103

**Infrared monitor incorporating shape recognition circuit - generates alarm when alarm signals from histogram calculator and shape recognition circuit are activated**

Patent Assignee: FUJITSU LTD (FUIT )  
Inventor: NAKAMURA T  
Number of Countries: 007 Number of Patents: 005  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 400607	A	19901205	EP 90110265	A	19900530	199049 B
JP 3003079	A	19910109	JP 89138270	A	19890531	199108
US 5059796	A	19911022	US 90531152	A	19900531	199145
EP 400607	B1	19960103	EP 90110265	A	19900530	199606
DE 69024537	E	19960215	DE 624537	A	19900530	199612
			EP 90110265	A	19900530	

Priority Applications (No Type Date): JP 89138270 A 19890531  
Cited Patents: A3...9147; AU 432885; DE 3015026; EP 224253; EP 318039;  
NoSR:Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 400607	A				
					Designated States (Regional): DE FR GB NL SE
EP 400607	B1 E	20		G08B-013/194	
					Designated States (Regional): DE FR GB NL SE
DE 69024537	E			G08B-013/194	Based on patent EP 400607

Abstract (Basic): EP 400607 A

The system uses infra-red radiation which is detected by a camera. Two successive frames are compared by computer, and the differences are considered. First the number of **pixels** in the difference area with a temperature above threshold is counted and if it exceeds a given number, an alarm signal is generated.

Next the **shape** of the **area** is compared with a number of stored **shapes**, and if it matches one another alarm signal is generated. In addition to, or instead of, the **shape** detector. The position of a prominent hot spot is placed on a histogram, and, if this is in a sensitive position there is an alarm. A physical alarm sounds if there is the first alarm and one of the others.

ADVANTAGE - Multiple alarm criteria allow accurate discrimination of trespassers e.g. from animals or vehicles. (14pp Dwg.No.2/5

Title Terms: INFRARED; MONITOR; INCORPORATE; **SHAPE**; RECOGNISE; CIRCUIT; GENERATE; ALARM; ALARM; SIGNAL; HISTOGRAM; CALCULATE; **SHAPE**; RECOGNISE; CIRCUIT; ACTIVATE

Derwent Class: T04; W02; W04; W05

International Patent Class (Main): G08B-013/194

International Patent Class (Additional): G01J-005/18; **G06F-015/62**;

**G06K-009/00**; G08B-013/19; G08B-017/12; **H04N-005/33**; **H04N-007/18**

File Segment: EPI

41/5/69 (Item 43 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

008389908 \*\*Image available\*\*  
WPI Acc No: 1990-276909/199037  
XRPX Acc No: N90-213993

**Digital picture two-dimensional portion access - reading set of stored words, which represent set of pixels, in parallel from memory**

Patent Assignee: SONY CORP (SONY )  
Inventor: HEDLEY D J; KEATING S M; VIRTUE P J  
Number of Countries: 005 Number of Patents: 007  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 386881	A	19900912	EP 90301012	A	19900113	199037 B
GB 2229059	A	19900912	GB 895183	A	19890307	199037
JP 2276383	A	19901113	JP 9056053	A	19900307	199051
US 5125048	A	19920623	US 90482050	A	19900220	199228
GB 2229059	B	19930804	GB 895183	A	19890307	199331
EP 386881	B1	19970827	EP 90301012	A	19900131	199739
DE 69031317	E	19971002	DE 631317	A	19900131	199745
			EP 90301012	A	19900131	

Priority Applications (No Type Date): GB 895183 A 19890307

Cited Patents: 1.Jnl.Ref; A3...9147; EP 381064; EP 85210; GB 2172169; GB 2180378; JP 61006771; NoSR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 386881	A				
Designated States (Regional): DE FR GB					
US 5125048	A		23	G06K-009/00	
GB 2229059	B		2	H04N-005/14	
EP 386881	B1 E		17	G06T-001/00	
Designated States (Regional): DE FR GB					
DE 69031317	E			G06T-001/00	Based on patent EP 386881

Abstract (Basic): EP 386881 A

Digital words are allocated into groups such that the **pixels** (P) represented by the words of each group make up a 2-D area (T0, T1, etc.) of the picture having a shape and size which is the same for all of the groups, the shape being such that the areas tessellate with one another to constitute at least part of the picture. Each word is stored in one of a number of memories (M0 to M15), the number of memories being equal to the number of **pixels** (P) in the 2-D area (T0, T1 etc), such that, for each **pixel** position in the area, the words from all of the groups representing the **pixels** having that **pixel** position in the area are stored in a respective one of the memories.

Then, a set of the stored words which represent a set of **pixels** are read in parallel. The **pixels** of the set are so positioned relative to one another as to constitute at least some of the **pixels** (P0 to P15) of a 2-D portion of the picture which is of the same size and shape as the above-mentioned 2-D area (T0, T1, etc) whereby, even if the **pixels** of the set are located in different ones of the 2-D areas, the words representing the **pixels** (P0 to P15) of the set are each stored in a respective different one of the memories (M0 to M15) so that they can be read in parallel.

ADVANTAGE - Enables pipelined processing. (20pp Dwg.No.1/13

Title Terms: DIGITAL; PICTURE; TWO; DIMENSION; PORTION; ACCESS; READ; SET; STORAGE; WORD; REPRESENT; SET; **PIXEL** ; PARALLEL; MEMORY

Derwent Class: T01

International Patent Class (Main): G06K-009/00 ; G06T-001/00 ;

H04N-005/14

International Patent Class (Additional): G06F-015/62 ; H04N-005/262

File Segment: EPI

41/5/70 (Item 44 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007900698 \*\*Image available\*\*

WPI Acc No: 1989-165810/198922

XRPX Acc No: N89-126522

Discriminating regions of text from continuous tone areas - where two level comparator produces preliminary decision which is changed if pixel is within set distance of text pixel



Patent Assignee: EASTMAN KODAK CO (EAST )  
Inventor: SMITH C M  
Number of Countries: 006 Number of Patents: 006  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8904575	A	19890518	WO 88US3733	A	19881025	198922 B
US 4862283	A	19890829	US 87115321	A	19871102	198944
EP 340283	A	19891108	EP 88909928	A	19881025	198945
JP 2502060	W	19900705	JP 88509164	A	19881025	199033
EP 340283	B1	19930714	EP 88909928	A	19881025	199328
			WO 88US3733	A	19881025	
DE 3882361	G	19930819	DE 3882361	A	19881025	199334
			EP 88909928	A	19881025	
			WO 88US3733	A	19881025	

Priority Applications (No Type Date): US 87115321 A 19871102

Cited Patents: 3.Jnl.Ref; GB 2172169; JP 61080961; JP 61080968; EP 55834;  
JP 1131683

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
-----------	------	--------	----------	--------------

WO 8904575	A	E 19		
------------	---	------	--	--

Designated States (National): JP

Designated States (Regional): DE FR GB NL

US 4862283	A	7		
------------	---	---	--	--

EP 340283	A	E		
-----------	---	---	--	--

Designated States (Regional): DE FR GB NL

EP 340283	B1	E 10	H04N-001/40	Based on patent WO 8904575
-----------	----	------	-------------	----------------------------

Designated States (Regional): DE FR GB

DE 3882361	G		H04N-001/40	Based on patent EP 340283
------------	---	--	-------------	---------------------------

Based on patent WO 8904575

Abstract (Basic): WO 8904575 A

Apparatus for selecting image processing by either text mode (20) or continuous tone mode (22). A circuit (25) differentiates between text and continuous tone **pixels**, and generates a preliminary discrimination signal (27). A circuit (29) is operable upon the preliminary decision signal (27) for a **pixel** of interest for creating a final discrimination signal (30) by changing a continuous tone preliminary decision to a text decision if the **pixel** of interest is within a predetermined distance of a text **pixel**. A circuit selects (1) text mode image processing when the final discrimination signal is a text decision, and (2) continuous tone image processing when the final discrimination signal is a continuous tone decision.

The predetermined distance defines an area at least large enough to completely remove continuous tone edges of objects in text regions, and the predetermined distance is operator selectable. The predetermined distance may define a diamond **shaped area** around the **pixel** of interest where, the area encompasses thirteen **pixels**.

USE/ADVANTAGE - Electronic copying or facsimile transmission. Removes thin continuous tone edges on characters, low frequency halftone material and other objects, and also improves reproduction of narrow-line, low-density characters by thinning completely through characters

Title Terms:- DISCRIMINATE; REGION; TEXT; CONTINUOUS; TONE; AREA; TWO; LEVEL; COMPARATOR; PRODUCE; PRELIMINARY; DECIDE; CHANGE; **PIXEL**; SET;

DISTANCE; TEXT; **PIXEL**

Derwent Class: S06; T01; W02

International Patent Class (Main): H04N-001/40

International Patent Class (Additional): G06F-015/66

File Segment: EPI

41/5/71 (Item 45 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007645845 \*\*Image available\*\*

WPI Acc No: 1988-279777/198840

XRPX Acc No: N88-212365

**Bit rate reduction system for digital television signals - uses quantised prediction error signal and representative block obtained by vector quantisation**

Patent Assignee: SIEMENS AG (SIEI )

Inventor: HAMMER B; HOELZLWIMMER H; HOLZLWIMME H

Number of Countries: 011 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 284962	A	19881005	EP 88104576	A	19880322	198840 B
EP 284962	B1	19940302	EP 88104576	A	19880322	199409
DE 3888000	G	19940407	DE 3888000	A	19880322	199415
			EP 88104576	A	19880322	

Priority Applications (No Type Date): DE 3711260 A 19870403

Cited Patents: 1.Jnl.Ref; A3...9101; DE 3029190; EP 201679; No-SR.Pub

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
-----------	------	--------	----------	--------------

EP 284962	A	G	14	
-----------	---	---	----	--

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

EP 284962	B1	G	22	H04N-007/13
-----------	----	---	----	-------------

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

DE 3888000	G			H04N-007/13	Based on patent EP 284962
------------	---	--	--	-------------	---------------------------

Abstract (Basic): EP 284962 A

The bit rate reduction system for **digital television signals** uses block transformation of the signals, with each signal entered in a store for comparison with a following signal. Transformed image-to-image prediction error signals are obtained, and subjected to a sealar quantisation. The quantised prediction error signals are used to obtain a number corresponding to the adjacent parallel diagonals in a coefficient **matrix**, allowing the number of transmitted coefficients to be reduced by transmission of this number.

The prediction error signal is also subjected to a vector quantisation with the corresponding representative block transmitted via its index providing its address in a code book. The representative block is subtracted from the quantised prediction error signal, for reduction of the transmitted signal energy.

USE - For adaptive coding of colour and monochrome television images

Title Terms: BIT; RATE; REDUCE; SYSTEM; DIGITAL; TELEVISION; SIGNAL; QUANTUM; PREDICT; ERROR; SIGNAL; REPRESENT; BLOCK; OBTAIN; VECTOR; QUANTUM

Derwent Class: W02; W04

International Patent Class (Main): **H04N-007/13**

International Patent Class (Additional): **H04N-007/133**

File Segment: EPI

**41/5/72 (Item 46 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007637332 \*\*Image available\*\*

WPI Acc No: 1988-271264/198838

XRPX Acc No: N88-205964

**Video detection of colour areas on black and white backgrounds - comparing primary colour signals with luminance and reference signals, and locating data w.r.t. camera deflection signals**

Patent Assignee: DEN NORSKE STATSOL (NOOL-N); DEN NORSRE STATS OL (DENN-N); GAUSLAND I (GAUS-I)

Inventor: GAUSLAND I

Number of Countries: 018 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8806767	A	19880907				198838 B
NO 8700841	A	19880926				198844

AU 8813663 A 19880926 198851  
 EP 302929 A 19890215 EP 88902242 A 19880229 198907  
 DK 8806065 A 19881031 198918  
 JP 1502940 W 19891005 JP 88502063 A 19880229 198946  
 BR 8805635 A 19891017 198947  
 US 5086339 A 19920204 US 88593515 A 19881206 199208  
 Priority Applications (No Type Date): NO 87841 A 19870302; FR 872306 A  
 19870223

Cited Patents: 1.Jnl.Ref; US 3882446; US 3967235; US 4236233

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 8806767 A E 23

Designated States (National): AU BR DK JP KR US

Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

EP 302929 A E

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

Abstract (Basic): WO 8806767 A

A Y- **matrix** (20) produces a luminance signal Y from the primary colour signals (R,B,G) from the video camera (1). Comparators (21,22) produce one or more difference signals (R-Y), (B-Y), (G-Y). A/d converters (27,28) give **digital positional data** from the x-y deflection signals of the camera (1). The luminance and difference **signals** are **compared** by further comparators (25,23,24) with appropriate reference voltages Ys, (R-Y)s, (B-Y)s, (G-Y)s, set for the colour to be detected.

When all the signals correspond within the limits set by the tolerance signal epsilon, logic 1's will be fed to all inputs of the AND-gate (26), causing the output of position data. Using a microprocessor to set the colour reference levels and control the camera scanning enables the automatic detection of areas of different colours.

USE - Automatic digitalisation of position of colour **areas** on closely **patterned** black and white backgrounds, e.g. colour marked seismic sections.

Title Terms: VIDEO; DETECT; COLOUR; AREA; BLACK; WHITE; BACKGROUND; COMPARE  
 ; PRIMARY; COLOUR; SIGNAL; LUMINOUS; REFERENCE; SIGNAL; LOCATE; DATA;  
 CAMERA; DEFLECT; SIGNAL

Derwent Class: S03; T01

International Patent Class (Additional): G01V-001/34; **G06F-015/62** ;

**H04N-009/79**

File Segment: EPI

**41/5/73 (Item 47 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007445361 \*\*Image available\*\*

WPI Acc No: 1988-079295/198812

XRPX Acc No: N88-060177

**Digital video image storage and retrieval system - effects interpolation by addressing all tiles simultaneously to produce corresp. output from filter**

Patent Assignee: QUESTECH LTD (QUES-N)

Inventor: BARTON N; BILLING R

Number of Countries: 005 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 260997	A	19880323	EP 87308356	A	19870921	198812 B
US 4847691	A	19890711	US 88148609	A	19880126	198935
EP 260997	B1	19940316	EP 87308356	A	19870921	199411
DE 3789341	G	19940421	DE 3789341	A	19870921	199417
			EP 87308356	A	19870921	

Priority Applications (No Type Date): GB 8622611 A 19860919; US 88148609 A  
 19880126

Cited Patents: 1.Jnl.Ref; A3...9102; ER 176289; EP 85210; GB 2073988; JP 61006771; No-SR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

EP 260997	A	E	9		
-----------	---	---	---	--	--

Designated States (Regional): DE FR GB IT

US 4847691	A		6		
------------	---	--	---	--	--

EP 260997	B1	E	8	G06F-015/64	
-----------	----	---	---	-------------	--

Designated States (Regional): DE FR GB IT

DE 3789341	G			G06F-015/64	Based on patent EP 260997
------------	---	--	--	-------------	---------------------------

Abstract (Basic): EP 260997 A

The device comprises a memory organised in 'tiles' of memory elements (2) sub-assemblies of tiles (2A-D) all have the same coordinate address in one coordinate direction and have outputs coupled to an interpolation filter (6) operative in that direction. Individual tiles of respective sub-assemblies all have the same coordinate address in the other coordinate direction and the outputs of the filters of the sub-assemblies are connected to inputs of a further filter (9) operative in the other coordinate direction.

By allocating pixel values of discrete image areas of the picture to respective sub-assemblies (1A-D) in the horizontal direction and groups of tiles (2A-D) in the vertical direction, interpolation can be effected by addressing all tiles simultaneously to produce a corresponding output from the second filter (9).

2/2

Title Terms: DIGITAL; VIDEO; IMAGE; STORAGE; RETRIEVAL; SYSTEM; EFFECT; INTERPOLATION; ADDRESS; TILE; SIMULTANEOUS; PRODUCE; CORRESPOND; OUTPUT; FILTER

Derwent Class: W04

International Patent Class (Main): G06F-015/64

International Patent Class (Additional): G06F-015/66 ; H04N-005/26 ;

H04N-005/262

File Segment: EPI

41/5/74 (Item 48 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c). 2004 Thomson Derwent. All rts. reserv.

007424176

WPI Acc No: 1988-058111/198809

XRPX Acc No: N88-044157

Optimising appts. for system operational state - adjusts values of system operating parameters within given set of constraints to minimise set of given operational criterion values

Patent Assignee: AMERICAN TELEPHONE & TELEGRAPH CO (AMTT )

Inventor: LAGARIAS J C

Number of Countries: 008 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 257934	A	19880302	EP 87307190	A	19870814	198809 B
US 4894773	A	19900116	US 86899109	A	19860822	199010
CA 1275738	C	19901030				199049

Priority Applications (No Type Date): US 86899109 A 19860822

Cited Patents: 3.Jnl.Ref; A3...8941; No-SR.Pub; US 4208712; WO 8300069

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

EP 257934	A	E	26		
-----------	---	---	----	--	--

Designated States (Regional): BE DE FR GB NL SE

US 4894773	A		21		
------------	---	--	----	--	--

Abstract (Basic): EP 257934 A

Sensors develop signal representations of the parameter values and a processor portion responsive to the representations, the constraints and the criterion, produces a canonical form signal representation of

the system state. The summarising is effected by minimising (C power T)(X) subject to (A)(X)= 0, (e power TT)(X)= n, X is not less than 0, and Ae = 0. where x is a vector related to the parameters, c is a vector related to the criterion values, n is the no. of parameters, A is an m by n **matrix** of coeffts. related to the constraints, and e is a vector of all 1's.

The c signal representation **forms a multidimensional space** with the parameters being variables, the **matrix** defines a polytope in the space, and the c vector specifies a direction in the space. A second processor portion projects the parameters, the **matrix** and the c vector into a transformer space and develops a **matrix** Q. A third processor portion computes a power series function in the transformed space, of order greater than one, that approximates a trajectory curve in consonance with the criterion. A controller sets the parameters at values corresp. to a point in the transformed space and along the curve.

Title Terms: OPTIMUM; APPARATUS; SYSTEM; OPERATE; STATE; ADJUST; VALUE; SYSTEM; OPERATE; PARAMETER; SET; CONSTRAIN; MINIMISE; SET; OPERATE; CRITERIA; VALUE

Derwent Class: T01

International Patent Class (Additional): G06F-015/20

File Segment: EPI

41/5/75 (Item 49 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007282271

WPI Acc No: 1987-279278/198740

XRPX Acc No: N87-209182

**Wideband switching network serving communication circuits - has matrix of HF semiconductor crosspoints forming point-to-points space division switch**

Patent Assignee: AMERICAN TELEPHONE & TELEGRAPH CO (AMTT )

Inventor: FARLEIGH S E; HELTON J S; LARSON A L; LIU F C; LIU F C S

Number of Countries: 006 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 239908	A	19871007	EP 87104282	A	19870324	198740, B
JP 62237893	A	19871017	JP 8776525	A	19870331	198747
US 4769833	A	19880906	US 86846327	A	19860331	198838
CA 1254948	A	19890530				198926
EP 239908	B1	19940223	EP 87104282	A	19870324	199408
DE 3789119	G	19940331	DE 3789119	A	19870324	199414
			EP 87104282	A	19870324	

Priority Applications (No Type Date): US 86846327 A 19860331

Cited Patents: 3.Jnl.Ref; A3...8948; No-SR.Pub; US 4295154

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 239908	A	E	15		

Designated States (Regional): DE FR GB

US 4769833	A	12
------------	---	----

EP 239908	B1	E	16	H04M-011/06
-----------	----	---	----	-------------

Designated States (Regional): DE FR GB

DE 3789119	G		H04M-011/06	Based on patent EP 239908
------------	---	--	-------------	---------------------------

Abstract (Basic): EP 239908 A

Wideband source and destination terminal equipment are either connected to modems which encode the analogue signals used by the source terminal equipment into **digital signals** for transmission through the switching network and decode the received **digital signals** into analogue signals used by the destination terminal equipment; or are directly connected to the switching network if source and destination terminal equipment transmit and receive **digital signals**.

The modems are connected to the switching network by optical fibres. Connections are originated by a subscriber transmitting connection control signals to the switching network controller on a dial-up basis from a telephone station set, on a data link from a computer or directly from a keyboard associated with the controller.

USE - Switching h.f. or wideband signals such as video or bulk data.

0/5

Title Terms: WIDE BAND; SWITCH; NETWORK; SERVE; COMMUNICATE; CIRCUIT;  
**MATRIX** ; HF; SEMICONDUCTOR; CROSSPOINT; FORMING; POINT; POINT; SPACE;  
DIVIDE; SWITCH  
Derwent Class: W01; W02  
International Patent Class (Main): H04M-011/06  
International Patent Class (Additional): H04L-011/20; **H04N-007/13** ;  
H04Q-003/52; H04Q-011/04  
File Segment: EPI

**41/5/76 (Item 50 from file: 350)**

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007195501

WPI Acc No: 1987-192510/198727

XRPX Acc No: N87-144114

**Distortion correction method for real time imaging system - uses  
projection lens transfer characteristic to pre-emphasise an image,  
producing output on video display**

Patent Assignee: GENERAL ELECTRIC CO (GENE )

Inventor: BUNKER W M; MERTZ D M

Number of Countries: 008 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8703980	A	19870702	WO 86US2726	A	19861219	198727 B
EP 250588	A	19880107	EP 87901273	A	19861219	198801
US 4714428	A	19871222	US 879649	A	19870128	198801
JP 63502464	W	19880914	JP 87501401	A	19861219	198843
CA 1254655	A	19890523				198925
US 4862388	A	19890829	US 86941316	A	19861215	198944
IL 79822	A	19900319				199021
EP 250588	B	19911016				199142
DE 3682065	G	19911121				199148

Priority Applications (No Type Date): US 86941316 A 19861215; US 85810737 A  
19851219; US 879649 A 19870128

Cited Patents: Jnl.Ref; No-SR.Pub; US 3723805; 00 1.Jnl.Re; 00 EP0013; 30  
US0465

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8703980	A	E	50		

Designated States (National): JP

Designated States (Regional): DE FR GB IT

EP 250588	A	E
-----------	---	---

Designated States (Regional): DE FR GB IT

US 4714428	A	24
------------	---	----

US 4862388	A	29
------------	---	----

EP 250588	B
-----------	---

Designated States (Regional): DE FR GB IT

Abstract (Basic): WO 8703980 A

The imaging method has a projector space divided into several spans, each comprising a number of **pixels**. The coordinates of each span is identified, and the transfer characteristics of the projection lens are obtained. The coordinates of the display w.r.t. the projector space are determined using the lens transfer function.

The appropriate locations are then computed to provide the viewer with an undistorted image by using the lens transfer characteristics, the predistorted image is then projected.

USE/ADVANTAGE - Real time computer image generation esp. for  
simulators offering better definition and detail than current systems.

Dwg.1/20

Title Terms: DISTORT; CORRECT; METHOD; REAL; TIME; IMAGE; SYSTEM; PROJECT;  
LENS; TRANSFER; CHARACTERISTIC; PRE; EMPHASIS; IMAGE; PRODUCE; OUTPUT;  
VIDEO; DISPLAY

Index Terms/Additional Words: FLIGHT; SIMULATE

Derwent Class: T01; W06; W07

International Patent Class (Additional): G06F-003/14 ; G06F-015/72

File Segment: EPI

41/5/77 (Item 51 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007102481

WPI Acc No: 1987-102478/198715

XRPX Acc No: N87-077073

Matrix pattern generator esp. for semiconductor mask - has two data  
highways and several image generators with storage systems and scanning  
devices

Patent Assignee: ATEQ CORP (ATEQ-N); ETEC SYSTEMS INC (ETEC-N)

Inventor: GOODMAN A L; GREEN M H; JOLLEY M J; TEITZEL R L; WIPFLI J L

Number of Countries: 005 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3633454	A	19870409	DE 3633454	A	19861001	198715 B
GB 2181854	A	19870429	GB 86603096	A	19860207	198718
FR 2588391	A	19870410				198720
GB 2196439	A	19880427	GB 8719596	A	19870819	198817
US 4806921	A	19890221	US 85784856	A	19851004	198910
CA 1256594	A	19890627				198934
GB 2196439	B	19891018	GB 8619596	A	19860207	198942
GB 2181854	B	19891228	GB 8660396	A	19860207	199001
DE 3633454	C2	19960111	DE 3633454	A	19861001	199606
US 5959606	A	19990928	US 85784856	A	19851004	199947
			US 88268838	A	19881108	
			US 91689083	A	19910419	
			US 94327581	A	19941024	

Priority Applications (No Type Date): US 85784856 A 19851004; US 88268838 A  
19881108; US 91689083 A 19910419; US 94327581 A 19941024

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3633454	A		23		
US 4806921	A		22		
DE 3633454	C2		28	G06T-011/20	
US 5959606	A			G09G-005/36	Cont of application US 85784856
					Cont of application US 88268838
					Cont of application US 91689083
					Cont of patent US 4806921

Abstract (Basic): DE 3633454 A

Each image generator contains a storage system for the first  
highway data and a storage system for the second highway data. A pixel  
generator is connected to both storage systems which stores the  
pixels in the second system. The data in the second storage system is  
scanned and read into the second highway.

A storage control system loads the data into one of the first  
storage systems in one of the image generators from the first highway  
and simultaneously activates the scanning device of one of the second  
storage systems in a different image generator.

ADVANTAGE - Fast pattern prodnusing scanning laser beams

Title Terms: MATRIX ; PATTERN; GENERATOR; SEMICONDUCTOR; MASK; TWO; DATA;  
HIGHWAY; IMAGE; GENERATOR; STORAGE; SYSTEM; SCAN; DEVICE

Derwent Class: P81; P84; P85; T01; U11

International Patent Class (Main): G06T-011/20 ; G09G-005/36  
International Patent Class (Additional): G02B-026/10; G03F-001/00;  
G06F-015/62 ; G09G-001/16; H01L-021/70; H04N-001/40  
File Segment: EPI; EngPI

41/5/78 (Item 52 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

004477969  
WPI Acc No: 1985-304847/198549  
XRPX Acc No: N85-226682

**Pattern recognition system for optical character recognition - assigns to each area of pattern to be recognised reference set of labels and corresponding confidence measure**

Patent Assignee: BRITISH TELECOM PLC (BRTE )  
Inventor: STENTIFORD F  
Number of Countries: 012 Number of Patents: 004  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 163377	A	19851204				198549 B
US 4817171	A	19890328	US 85721402	A	19850409	198915
EP 163377	B	19900912				199037
DE 3579627	G	19901018				199043

Priority Applications (No Type Date): GB 849196 A 19840410  
Cited Patents: 3.Jnl.Ref; US 3603930; US 4153897  
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 163377	A	E	35		
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
EP 163377	B				
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					

Abstract (Basic): EP 163377 A

Printed characters to be recognised are scanned by a two-dimensional raster input device (1) such as a facsimile machine scanner and the video signals produced are input to a dichotomising device (3). This converts grey scale video signals to binary coded signals of **pixels** representing black or white on the image scanned. The resulting signals are input to a feature matching device (5) which tests for presence or absence of features, such as for example a specific spatial arrangement of two white **pixels** and one black **pixel**. In parts of the binary-coded signal which correspond with areas of the scanned image.

The feature responses produced are input to the label assignment decision circuit (7) where they are compared with reference vectors and a label and confidence measures are assigned. A syntactic processor (9) assembles the labels and measures, and the corresponding positional information derived from the input device, in a buffer. For those areas of text to which labels have been assigned having confidence measures exceeding those for neighbouring areas, the labels and positional information are output.

ADVANTAGE - Recognition process is continuous and no segmentation or similar processing is required before assignment of labels.

1/8

Title Terms: PATTERN; RECOGNISE; SYSTEM; OPTICAL; CHARACTER; RECOGNISE;  
ASSIGN; AREA; PATTERN; RECOGNISE; REFERENCE; SET; LABEL; CORRESPOND;  
CONFIDE; MEASURE  
Derwent Class: T04  
International Patent Class (Additional): G06K-009/62  
File Segment: EPI

41/5/79 (Item 53 from file: 350)  
DIALOG(R) File 350:Derwent WPIX



(c) 2004 Thomson Derwent. All rts. reserv.

004475954

WPI Acc No: 1985-302832/198548

XRPX Acc No: N85-225488

**Segmentation algorithm for signature verification - segments signal and reference data to facilitate identifying regions of high probable correlation**

Patent Assignee: IBM CORP (IBM )

Inventor: CHAINER T J; WORTHINGTO T K

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4553258	A	19851112				198548 B

Priority Applications (No Type Date): US 83567200 A 19831230

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 4553258	A	7		

Abstract (Basic): US 4553258 A

Acceleration and pressure signals produced by a known person when writing his or her signature are stored and used as a reference signals. Then, at a later time, a person whose signature is to be verified writes his or her signature to produce acceleration and pressure signals that are compared to the reference signals. The process of comparison involves segmenting the two sets of signals to facilitate identifying regions of high portable correlation and then correlating corresponding segment pairs. Segmentation is based on pen lifts which represent reproducible timing marks in the signatures. A pen or other writing instrument is used which reproduces a signal representative of the first time derivative of the pressure forces exerted on the stylus of the pen. The second time derivative of the pressure forces is computed from the measured signal.

The time derivatives are examined to detect quiet times indicative of lifting the pen from a writing surface. The detected quiet times are checked to determine if they have a time duration which exceeds a predetermined time period.

USE - Electronics funds transfer

Title Terms: SEGMENT; ALGORITHM; SIGNATURE; VERIFICATION; SEGMENT; SIGNAL; REFERENCE; DATA; FACILITATE; IDENTIFY; REGION; HIGH; PROBABILITY; CORRELATE

Derwent Class: S05; T04; T05

International Patent Class (Additional): G06K-009/34

File Segment: EPI

41/5/80 (Item 54 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

004444562

WPI Acc No: 1985-271440/198544

XRPX Acc No: N85-202658

**Printed pattern density and evenness evaluating appts. - has circuit for differentiating image data in each segment and synthesiser for finding effective domain in patterns**

Patent Assignee: FUJITSU LTD (FUJIT )

Inventor: IWASE H; OZAKI T; TORIU T

Number of Countries: 010 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 159880	A	19851030	EP 85302582	A	19850412	198544 B
AU 8541085	A	19851017				198547
JP 61208387	A	19860916	JP 8548897	A	19850312	198643
CA 1226948	A	19870915				198741
US 4736315	A	19880405	US 85722559	A	19850412	198816

KR 9004812 B 19900707 199131  
EP 159880 B1 19930804 EP 85302582 A 19850412 199331  
DE 3587488 G 19930909 DE 3587488 A 19850412 199337  
EP 85302582 A 19850412

Priority Applications (No Type Date): JP 8548897 A 19850312; JP 8474521 A 19840413; JP 84127827 A 19840621; JP 84270437 A 19841221

Cited Patents: 1.Jnl.Ref; A3...8819; EP 115546; GB 1049227; No-SR.Pub

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 159880 A E 57

Designated States (Regional): DE FR GB IT NL

EP 159880 B1 E 41 G06F-015/70

Designated States (Regional): DE FR GB IT NL

DE 3587488 G G06F-015/70 Based on patent EP 159880

Abstract (Basic): EP 159880 A

The appts. includes circuitry (4,5) for calculating the density distribution of several image data in each segment of a **pattern**. A circuit (6) normalises the density distribution with an area of effective image data in each segment, and a further circuit (8) quantifies the density and evenness of the **patterns**. The calculating circuitry pref. includes a circuit (44) for differentiating the image data in each segment. A discriminating-converting circuit (45) receives and discriminates the differential values with a predetermined value and converts the values into a specific value in response to the discrimination.

Another discriminating circuit (42) performs the same process for the image data in each segment. A synthesiser (62) finds an effective domain of the printed **patterns** by synthesising the output signals from the two discriminating-converting circuits. ADVANTAGE - Has high reliability irrespective of changes in illumination and noise.

1/37

Title Terms: PRINT; **PATTERN**; DENSITY; EVEN; EVALUATE; APPARATUS; CIRCUIT; DIFFERENTIAL; IMAGE; DATA; SEGMENT; SYNTHESISER; FINDER; EFFECT; DOMAIN;

**PATTERN**

Derwent Class: P75; P84; S01; T01; U11

International Patent Class (Main): **G06F-015/70**

International Patent Class (Additional): B41J-029/00; G01N-021/84;

G03F-001/00; G03G-015/00; **G06K-009/36**; **H04N-007/18**

File Segment: EPI; EngPI

41/5/81 (Item 55 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

004417098

WPI Acc No: 1985-243976/198540

XRPX Acc No: N85-182612

**Image processing appts. for pattern recognition in real time - labels images, contg. labels, calculates label area and recognises nesting relationships between images**

Patent Assignee: HITACHI LTD (HITA )

Inventor: ARIGA M; HATA S; NAKAGIMA M; SUZUMURA Y; TAKAHASHI M

Number of Countries: 005 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 156344	A	19851002	EP 85103491	A	19850325	198540 B
US 4718101	A	19880105	US 85714795	A	19850322	198803
KR 8903139	B	19890823				199032
EP 156344	B1	19920715	EP 85103491	A	19850325	199229
DE 3586326	G	19920820	DE 3586326	A	19850325	199235
			EP 85103491	A	19850325	

Priority Applications (No Type Date): JP 8456046 A 19840326

Cited Patents: 5.Jnl.Ref; A3...8840; EP 25760; No-SR.Pub

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
EP 156344 A E 48  
Designated States (Regional): DE FR SE  
EP 156344 B1 E 28 G06K-009/56  
Designated States (Regional): DE FR SE  
DE 3586326 G G06K-009/56 Based on patent EP 156344

Abstract (Basic): EP 156344 A

Signals input from a TV camera are A/D converted and passed to a selector, together with signals read from a binary image memory. A binary image extraction circuit receives addresses from a generator and extracts the binary operator of three by two **pixels**. A labelling encoder stores a table which represents rotations between possible signal patterns and associated processing modes. The encoder outputs a labelling code, a new label generation signal (21) and a label confluence signal.

A selector labels an objective **pixel** according to the labelling code. For area detection, the label information provided by a labelled image extraction device is input to the detector for addressing an area memory.

ADVANTAGE - Provides image segmentation for **areas** of arbitrary **shape**.

2A/17

Title Terms: IMAGE; PROCESS; APPARATUS; PATTERN; RECOGNISE; REAL; TIME; LABEL; IMAGE; CONTAIN; LABEL; CALCULATE; LABEL; AREA; RECOGNISE; NEST; RELATED; IMAGE

Derwent Class: T01; T04; T05; W02; W04

International Patent Class (Main): G06K-009/56

International Patent Class (Additional): G06F-015/70

File Segment: EPI

41/5/82 (Item 56 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

004224808

WPI Acc No: 1985-051687/198509

XRPX Acc No.: N85-038451

**Automatic alphanumeric character recognition system - uses video scan which is processed by analysis of geometric contours and joining curves to determine character**

Patent Assignee: SCAN-OPTICS INC (SCAN-N)

Inventor: DAMATO D; PINTSOV L; STONE D

Number of Countries: 005 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2549259	A	19850118	FR 8411067	A	19840712	198509 B
GB 2144251	A	19850227	GB 8417153	A	19840705	198509
DE 3425449	A	19850328	DE 3425449	A	19840711	198514
US 4628532	A	19861209	US 83513403	A	19830714	198652
GB 2144251	B	19870401				198713
IT 1180075	B	19870923				199037

Priority Applications (No Type Date): US 83513403 A 19830714

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

FR 2549259 A 110

Abstract (Basic): FR 2549259 A

The character recognition system includes storing data directly related to the contours of the object to be identified and comparing te contour with prestored data. Regions adjacent to the contour are **compared** with memorised **data** and each region is identified as a basic geometric shape analysis. The relative position and orientation of each shape is analysed. The system further includes preparation of a testable description and generation of a series of possible characters.

The possible characters are **compared** against stored **data** on characters and the character identified by this procedure are notified.

A video captor (10) gathers the image and passes it through an analogue-to-digital convertor (11) for processing by a black point recognition system (22), a tractor (24), and a characteristic extraction system (28).

USE - Automatic recognition of manuscript characters.

1/27

Title Terms: AUTOMATIC; ALPHANUMERIC; CHARACTER; RECOGNISE; SYSTEM; VIDEO; SCAN; PROCESS; ANALYSE; GEOMETRY; CONTOUR; JOIN; CURVE; DETERMINE; CHARACTER

Derwent Class: T01; T04

International Patent Class (Additional): G06F-015/62 ; G06K-008/48 ;

G06K-009/72 ; G06R-000/00

File Segment: EPI

41/5/83 (Item 57 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

003986319

WPI Acc No: 1984-131863/198421

XPX Acc No: N84-097610

**TV signals simulator for measurements - has adders switches, buffer register and clock pulses generator whose output is coupled to pseudo-random pulse series generator**

Patent Assignee: KLIKIN V I (KLIK-I)

Inventor: LOTONOV M A; SARKISOV V P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 1035831	A	19830815	SU 3404084	A	19820111	198421 B

Priority Applications (No Type Date): SU 3404084 A 19820111

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
SU 1035831	A		4		

Abstract (Basic): SU 1035831 A

**Adders** (5,16) weight coeffts. (9) and switching (14,19, 22 ,24) units, AND gates (13,15) buffer register (21) and clock pulses generator (8) are used in a T.V. signals simulator to allow phone and noise component imitation. A generation (1) pulse are applied to a co-ordinate **counter** (2) which output is formed into normalised **sequence** at **frame** frequency.

A strobe former (7) output pulses are proportional to the strobe length regulator (6) output voltage. Formed strobe and a generator (10) output is quantised by switches (18,24) and applied to **counter** (17,23) which output pulses simulate the bright spot movement on a screen. A clock pulse generator (8) output is applied to a pseudorandom sequence generator (12) which output is weighted and processed to formulate high and low frequency noise signals. All four sequences are stored in a buffer register (21) and used to form a point object mark on a screen. Bul.30/15.8.83.

(4pp Dwg.No.1/1

Title Terms: TELEVISION; SIGNAL; SIMULATE; MEASURE; **ADDER** ; SWITCH; BUFFER ; REGISTER; CLOCK; PULSE; GENERATOR; OUTPUT; COUPLE; PSEUDO; RANDOM; PULSE; SERIES; GENERATOR

Derwent Class: W02

International Patent Class (Additional): H04N-007/02

File Segment: EPI

41/5/84 (Item 58 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

003289696

WPI Acc No: 1982-D7707E/198214

**Surface defect detector for jet engine turbine blades - highlights such defect with ultraviolet emission capabilities and automatically analyses image observed by video camera**

Patent Assignee: TRW INC (THOP )

Inventor: BARRETT J S; BRABSTON D C; CAMANE P C; CORNYN W S; MCAFERTY J M; NELSON S P; SCHY S T

Number of Countries: 013 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 48568	A	19820331				198214 B
BR 8105987	A	19820608				198225
CA 1175555	A	19841002				198444
IL 63781	A	19850331				198517

Priority Applications (No Type Date): US 80188651 A 19800919

Cited Patents: GB 2009395; GB 2057675; GB 2064762; No-SR.Pub; US 3694658; US 3729619; US 4183013

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 48568	A	E	53		

Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

Abstract (Basic): EP 48568 A

The component being examined for defects is treated or coated with a suitable material to enhance the contrast between the defects and surrounding areas and is then exposed to ultraviolet radiation. The component is subsequently scanned by a video camera to observe visible light in the ultraviolet range emitted by the coating material which has penetrated any crack or defect in the component surface.

The video camera and its lens and filter system are particularly sensitive to ultraviolet light and provide a signal to the analog-to-digital converter which provides sampled digital outputs on the line to a **histogram calculation** module and an image thresholding module which **form** the input interfaces to a microprocessor controller. The microprocessor effects a comparison between the input signals and stored information in respect to anomalous regions and predetermined rejection criteria. The rejection may be based on region size, region **shape** or region position and orientation and the controller makes the acceptance or rejection decision automatically.

Title Terms: SURFACE; DEFECT; DETECT; JET; ENGINE; TURBINE; BLADE; HIGHLIGHT; DEFECT; ULTRAVIOLET; EMIT; CAPABLE; AUTOMATIC; ANALYSE; IMAGE; OBSERVE; VIDEO; CAMERA

Derwent Class: S03; T01

International Patent Class (Additional): G01M-013/00; G01N-021/89;

G06F-015/20 ; G06K-009/46 ; H04N-003/18

File Segment: EPI

Set	Items	Description
S1	0	HISTOGRAM() CALCULATION
S2	14987	SHAPE? OR FORM? OR PATTERN? OR CONFIGURATION? OR CAST? OR - FIGURE?
S3	67	S2 (3N) (SPACE? OR AREA?)
S4	933	PIXEL? OR PIX() ELEMENT? OR GRAPH OR MATRIX? OR MATRICES
S5	0	(MULTIDIMENSIONAL OR MULTI() DIMENSIONAL) () (SPACE? OR AREA?)
S6	1059	(DIGITAL OR ELECTRONIC) (2N) (SIGNAL? OR DATA OR FREQUENCY OR FREQUENCIES OR WAVE? ? OR PULSE? ? OR WAVEFORM?)
S7	4	EIGENVECTOR? OR (SEQUENCE OR ORDER OR CONSECUTIVE) () (BINARY OR TWO) () NUMBERS
S8	367	(SYNCHRONIZATION? OR SYNCHRONISATION? OR SYNC OR MATCH? OR COMPAR? OR ACCORD?) (2N) (SIGNAL? OR DATA OR FREQUENCY OR FREQU- ENCIES OR WAVE? ? OR PULSE? ? OR WAVEFORM?)
S9	1	CENTER() GRAVITY OR IDENTIFY? () REGION?
S10	18	(INCREMENT? OR ADD OR ADDING OR ADDITION) (2N) (COUNTER? OR - ADDER? OR TRACK? OR METER?)
S11	6189	COUNTER? OR ADDER? OR TRACK? OR METER?
S12	34	(CONSECUTIVE OR SEQUENCE OR ORDER) (2W) (FRAME? OR WINDOW? OR VIEW? OR VISUAL OR SCREEN?)
S13	4361	VALID? OR AUTHENTICAT? OR VERIF? OR CERTIF?
S14	297	S2 AND S4
S15	0	S14 AND S5
S16	6	S14 AND S6
S17	4	S14 AND S8
S18	0	S14 AND S10
S19	35	S14 AND S11
S20	3	S3 AND S4
S21	79	S7 OR S9 OR S12 OR S17 OR S19 OR S20
S22	66	S21 NOT PY>2001
S23	59	S22 NOT PD>20010223

File 256:TecInfoSource 82-2004/Jul

(c)2004 Info.Sources Inc

Set	Items	Description
S1	49	HISTOGRAM() CALCULATION
S2	8804285	SHAPE? OR FORM? OR PATTERN? OR CONFIGURATION? OR C FIGURE?
S3	140083	S2 (3N) (SPACE? OR AREA?)
S4	1378334	PIXEL? OR PIX() ELEMENT? OR GRAPH OR MATRIX? OR MAT
S5	1797	(MULTIDIMENSIONAL OR MULTI() DIMENSIONAL) () (SPACE?
S6	224109	(DIGITAL OR ELECTRONIC) (2N) (SIGNAL? OR DATA OR FRE FREQUENCIES OR WAVE? ? OR PULSE? ? OR WAVEFORM?)
S7	33596	EIGENVECTOR? OR (SEQUENCE OR ORDER OR CONSECUTIVE) OR TWO) () NUMBERS
S8	267261	(SYNCHRONIZATION? OR SYNCHRONISATION? OR SYNC OR MATCH? OR COMPAR? OR ACCORD?) (2N) (SIGNAL? OR DATA OR FREQUENCY OR FREQU- ENCIES OR WAVE? ? OR PULSE? ? OR WAVEFORM?)
S9	1286	CENTER() GRAVITY OR IDENTIFY? () REGION?
S10	4477	(INCREMENT? OR ADD OR ADDING OR ADDITION) (2N) (COUNTER? OR - ADDER? OR TRACK? OR METER?)
S11	1250633	COUNTER? OR ADDER? OR TRACK? OR METER?
S12	5859	(CONSECUTIVE OR SEQUENCE OR ORDER) (2W) (FRAME? OR WINDOW? OR VIEW? OR VISUAL OR SCREEN?)
S13	1227695	VALID? OR AUTHENTICAT? OR VERIF? OR CERTIF?
S14	0	S1 AND S3
S15	21	S1 AND S2
S16	0	S15 AND S4
S17	0	S15 AND S5
S18	1	S15 AND S6
S19	2	S15 AND S8
S20	0	S15 AND S10
S21	0	S15 AND S11
S22	10600	S3 AND S4
S23	9	S22 AND S5
S24	67	S22 AND S6
S25	1	S24 AND S7
S26	162	S22 AND S7
S27	1	S24 AND S8
S28	58	S22 AND S8
S29	0	S1 AND S9
S30	1	S22 AND S9
S31	0	S22 AND S10
S32	4	S22 AND S12
S33	11	S3 AND S9
S34	4	S7 AND S9
S35	21	S8 AND S9
S36	177	S6 AND S7
S37	7	S5 AND S7
S38	215	S8 AND S7
S39	4	S9 AND S7
S40	201	S15 OR S18 OR S19 OR S23 OR S24 OR S25 OR S27 OR S28 OR S30 OR S32 OR S33 OR S34 OR S35 OR S37 OR S39
S41	158	S40 NOT PY>2001
S42	155	S41 NOT PD>20010223
S43	131	RD (unique items)
File	8: Ei Compendex(R) 1970-2004/Oct W4	
	(c) 2004 Elsevier Eng. Info. Inc.	
File	35: Dissertation Abs Online 1861-2004/Oct	
	(c) 2004 ProQuest Info&Learning	
File	103: Energy SciTec 1974-2004/Oct B2	
	(c) 2004 Contains copyrighted material	
File	202: Info. Sci. & Tech. Abs. 1966-2004/Nov 02	
	(c) 2004 EBSCO Publishing	
File	65: Inside Conferences 1993-2004/Oct W5	
	(c) 2004 BLDSC all rts. reserv.	
File	2: INSPEC 1969-2004/Oct W4	
	(c) 2004 Institution of Electrical Engineers	
File	233: Internet & Personal Comp. Abs. 1981-2003/Sep	
	(c) 2003 EBSCO Pub.	
File	94: JICST-EPlus 1985-2004/Oct W1	

*Non Patent  
Literature*

(c)2004 Japan Science and Tech Corp(JST)  
File 6:NTIS 1964-2004/Oct W4  
(c) 2004 NTIS, Intl Cpyrght All Rights Res  
File 99:Wilson Appl. Sci & Tech Abs 1983-2004/Sep  
(c) 2004 The HW Wilson Co.  
File 9:Business & Industry(R) Jul/1994-2004/Nov 04  
(c) 2004 The Gale Group  
File 239:Mathsci 1940-2004/Dec  
(c) 2004 American Mathematical Society  
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13  
(c) 2002 The Gale Group



43/5/2 (Item 2 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

05963166 E.I. No: EIP01526775969

**Title: Tracking remotely sensed cloud images in time and space**  
Author: DaPonte, J.S.; Vitale, J.N.; Parikh, J.A.; Tselioudis, G.  
Corporate Source: Computer Science Department Southern Connecticut State Univ., New Haven, CT 06515, United States  
Conference Title: Visualization of Temporal and Spatial Data for Civilian and Defense Applications  
Conference Location: Orlando, FL, United States Conference Date: 20010416-20010417  
Sponsor: SPIE  
E.I. Conference No.: 58794  
Source: Proceedings of SPIE - The International Society for Optical Engineering v 4368 2001. p 18-28  
Publication Year: 2001  
CODEN: PSISDG ISSN: 0277-786X  
Language: English  
Document Type: CA; (Conference Article) Treatment: T; (Theoretical); X; (Experimental)  
Journal Announcement: 0112W5

Abstract: Temporal and spatial analysis was applied to a sequence of cloud top pressure (CTP) images and cloud optical thickness (TAU) images, and a storm tracking algorithm was proposed. A sequence of storm tracks from the satellite images was developed from the satellite images. Composite images were created by projecting ahead in time and substituting the first valid pixel for missing data, and a variety of CTP and TAU cut-off values were used to **identify regions** of interest. The region correspondences were determined from one time frame to another which yielded the storm center coordinates. The obtained tracks were compared to the storm tracks computed from sea level pressure **data** by **matching** the results first in time and then in spatial distance. (Edited abstract) 10 Refs.

Descriptors: \*Image analysis; Storms; Clouds; Weather forecasting; Radar tracking; Remote sensing; Climatology; Sea level; Weather satellites; Data reduction; Algorithms; Mathematical models

Identifiers: Cloud top pressures (CTP); Satellite images

Classification Codes:

723.2 (Data Processing); 443.3 (Precipitation); 716.2 (Radar Systems & Equipment); 471.1 (Oceanography, General); 443.2 (Meteorological Instrumentation); 655.2 (Satellites)

723 (Computer Software, Data Handling & Applications); 443 (Meteorology); 716 (Electronic Equipment, Radar, Radio & Television); 471 (Marine Science & Oceanography); 655 (Spacecraft); 921 (Applied Mathematics)

72 (COMPUTERS & DATA PROCESSING); 44 (WATER & WATERWORKS ENGINEERING); 71 (ELECTRONICS & COMMUNICATION ENGINEERING); 47 (OCEAN & UNDERWATER TECHNOLOGY); 65 (AEROSPACE ENGINEERING); 92 (ENGINEERING MATHEMATICS)

43/5/6 (Item 6 from file: 8)  
DIALOG(R) File 8: Ei Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

05722833 E.I. No: EIP00125424133

**Title: Analysis of vector angles in remote sensed data field and it's application**

Author: Jianwen, M.; Chaofal, M.; Chen, G.; Buheasier,; Xin Xia,; Huang,  
Corporate Source: Chinese Acad of Sciences, Beijing, China  
Conference Title: 2000 International Geoscience and Remote Sensing Symposium (IGARSS 2000)  
Conference Location: Honolulu, HI, USA Conference Date: 20000724-20000728  
E.I. Conference No.: 57637  
Source: International Geoscience and Remote Sensing Symposium (IGARSS) v

2 2000. IEEE, Piscataway, NJ, USA, 00CB37120. p 724-726

Publication Year: 2000

CODEN: IGRSE3

Language: English

Document Type: CA; (Conference Article) Treatment: A; (Applications); T  
; (Theoretical)

Journal Announcement: 0101W3

Abstract: The visualization of scientific computation is space data field visualization. Scalar, vector and tensor quantity are principal parameters to define multi-dimension data field in linear electromagnetic system. Based on cause and effect rule of instantaneous change electromagnetic system. The response of remote sensing sensor to the electromagnetic field can be regarded as reflect of ground electromagnetic field. The **pixel** is the way to record the reflectance. Because the linear link between ground electromagnetic field and multi-band **data**, the **digital** image can be expressed as multi-dimension space data field. In multi-dimension linear vector space, values of data field can be calculated, differentiated, analyzed and the angle function also can be **formulated** in the **space**. The mapping of useful week feature in remote sensing data field is also carried out based on angle analysis. (Author abstract) 12 Refs.

Descriptors: \*Remote sensing; Sensor data fusion; Data reduction; Natural sciences computing; Visualization; Vectors; Tensors

Identifiers: Space data field visualization

Classification Codes:

731.1 (Control Systems); 723.2 (Data Processing); 921.1 (Algebra)

731 (Automatic Control Principles); 723 (Computer Software); 921  
(Applied Mathematics)

73 (CONTROL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 92  
(ENGINEERING MATHEMATICS)

43/5/7 (Item 7 from file: 8)

DIALOG(R) File 8:Ei Compendex(R)

(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

05665504 E.I. No: EIP00105354689

**Title: Adaptive array employing eigenvector beam of maximum eigenvalue and fractionally-spaced TDL with real tap**

Author: Takatori, Yasushi; Cho, Keizo; Nishimori, Kentaro; Hori, Toshikazu

Corporate Source: NTT Network Innovation Lab, Yokosuka-shi, Jpn

Source: IEICE Transactions on Communications v E83-B n 8 Aug 2000. p 1678-1687

Publication Year: 2000

CODEN: ITRCEC ISSN: 0916-8516

Language: English

Document Type: JA; (Journal Article) Treatment: A; (Applications); T;  
(Theoretical)

Journal Announcement: 0011W3

Abstract: This paper proposes a new digital beamforming adaptive array antenna (DBFAAA) that is effective in severe multipath environments in which timing and carrier synchronization circuits cannot function ideally resulting in the DBFAAA losing control. The proposed DBFAAA has two stages. In the first, the DBFAAA captures the desired **signal** and establishes **synchronization**. In the second, the DBFAAA optimizes the beam pattern of the signal. The proposed configuration employs an **eigenvector** beam of the maximum eigenvalue in the first stage beam-forming. In addition, a fractionally-spaced-tapped-delay-line (FS-TDL) with real tap weights, which is placed after the beam-former, is applied to achieve timing synchronization. The behavior of the proposed DBFAAA for asynchronous sampling data is investigated and the results indicate that the proposed configuration enables asynchronous sampling at the A/D converter. A prototype of the proposed DBFAAA achieving 38-Mbps real-time data communication is introduced and the transmission performance is shown. (Author abstract) 15 Refs.

Descriptors: Antenna arrays; Wireless telecommunication systems; Timing circuits; Eigenvalues and eigenfunctions; Optimization; Analog to **digital**

conversion; **Data** communication systems; Algorithms; **Matrix** algebra  
Identifiers: Adaptive array; **Eigenvector** beam; Digital beam **forming** ;  
Fractionally **spaced** tapped delay line  
Classification Codes:  
716.3 (Radio Systems & Equipment); 713.4 (Pulse Circuits); 921.1  
(Algebra); 921.5 (Optimization Techniques); 722.4 (Digital Computers &  
Systems); 723.2 (Data Processing)  
716 (Radar, Radio & TV Electronic Equipment); 713 (Electronic Circuits)  
; 921 (Applied Mathematics); 722 (Computer Hardware); 723 (Computer  
Software)  
71 (ELECTRONICS & COMMUNICATIONS); 92 (ENGINEERING MATHEMATICS); 72  
(COMPUTERS & DATA PROCESSING)

43/5/23 (Item 23 from file: 8)  
DIALOG(R)File 8: Ei Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

04215064 E.I. No: EIP95032645148

**Title: Nonlinear filtering of images in optical-digital processors**  
Author: Szoplik, Tomasz  
Corporate Source: Warsaw Univ., Warszawa, Pol  
Conference Title: 5th Int. Workshop on Digital Image Processing and  
Computer Graphics (DIP-94)  
Conference Location: Samara, Russia Conference Date: 19940823  
Sponsor: SPIE - Int Soc for Opt Engineering, Bellingham, WA USA  
E.I. Conference No.: 22161  
Source: Proceedings of SPIE - The International Society for Optical  
Engineering v 2363 1995. Society of Photo-Optical Instrumentation  
Engineers, Bellingham, WA, USA. p 211-219  
Publication Year: 1995  
CODEN: PSISDG ISSN: 0277-786X ISBN: 0-8194-1707-6  
Language: English  
Document Type: CA; (Conference Article) Treatment: T; (Theoretical); A;  
(Applications)  
Journal Announcement: 9509W4

Abstract: Implementations of rank order and morphological filtering in  
optical-digital processors are reviewed. In the processors, all of the  
convolutions are performed in inherently parallel optical correlators.  
Subsequent arithmetic and logic operations are made digitally. In the  
processors, gray scale images are sequentially treated slice by slice due  
to the threshold decomposition concept. The optical-digital method of local  
**histogram calculation** within both binary and weighted neighborhoods of  
arbitrary size and **shape** is recalled. Several **configurations** of optical  
correlators are discussed. Finally, some examples of efficient use of  
hybrid processors are presented. 28 Refs.

Descriptors: Image processing; Signal filtering and prediction; **Digital**  
**signal** processing; Optical data processing; Optical correlation;  
Calculations; Hybrid computers

Identifiers: Optical digital processors; Parallel optical correlators;  
Logic operations; Gray scale images; Threshold decomposition; Local  
histograms; Hybrid processors

Classification Codes:  
723.2 (Data Processing); 716.1 (Information & Communication Theory);  
722.5 (Analog & Hybrid Computers); 741.1 (Light/Optics)  
723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment);  
722 (Computer Hardware); 741 (Optics & Optical Devices); 921 (Applied  
Mathematics)  
72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS); 74  
(OPTICAL TECHNOLOGY); 92 (ENGINEERING MATHEMATICS)

43/5/43 (Item 2 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
(c) 2004 ProQuest Info&Learning. All rts. reserv.

01827076 ORDER NO: AADAA-I3011186

**Analysis and representations for automatic comparison, classification and retrieval of digital images**

Author: Howe, Nicholas Read

Degree: Ph.D.

Year: 2001

Corporate Source/Institution: Cornell University (0058)

Adviser: Dan Huttenlocher

Source: VOLUME 62/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 1461. 216 PAGES

Descriptors: COMPUTER SCIENCE

Descriptor Codes: 0984

ISBN: 0-493-20038-X

techniques for algorithmically measuring the similarity between two images do so at a very concrete level, measuring simple statistics computed from the raw image **pixels**. This dissertation develops and evaluates an evolvable of similarity, particularly by allowing the comparison of images based only upon certain significant portions. We begin by **formulating** and stating the **area**-matching assumption for concrete visual similarity: Two images are likely to be similar to the extent that they comprise equally matched areas of visually similar materials. We develop an infrastructure to test and explore this approach, and extend it to applications such as classification, image retrieval, and object retrieval. The infrastructure extends from early phases of image processing and analysis, through to multiple-image comparisons and frameworks for applying sophisticated learning algorithms. Throughout we apply the best available tests to evaluate the new techniques and compare them to existing methods.

We begin with basic image processing tools that contribute to successful image comparisons. A multi-tiered model-based segmentation algorithm identifies regions of uniform visual properties. The models used in the segmentation also lead to precise measurements of region properties such as texture and color. A flexible vector representation system forms the core of the image comparison infrastructure, recording in a uniform framework the characteristic feature co-occurrences identified within the image. Combined with a smoothing mechanism that allows closely related but non-identical feature matches to be recorded and scored, this representation forms the basis of a new similarity metric on images. We compare this similarity metric to other techniques on multiple tests, and find that in many circumstances, although not all, it performs on par with or better than existing methods.

Further variations on the original metric allow searches that match only the significant portions of images, as defined by a user's query. These extensions require no additional stored **data** structures, and **compare** well with existing methods. One variation proves at least as powerful as any of the other current algorithms implemented for comparison.

Finally, we look farther afield and draw connections between this work and the field of machine learning. First we show that the infrastructure developed here has broad applicability to other machine learning problems. Conversely, we also demonstrate that a popular machine learning approach (boosting) can significantly improve the performance of our image infrastructure on a large-scale classification task.

43/5/45 (Item 4 from file: 35)

DIALOG(R) File 35:Dissertation Abs Online

(c) 2004 ProQuest Info&Learning. All rts. reserv.

01822615 ORDER NO: AADAA-IMQ57492

**Design and modeling of digital filters (French text)**

Author: Lounes, Hassen

Degree: M.Ing.

Year: 2001

Corporate Source/Institution: Ecole de Technologie Superieure (Canada) (1246)

Directeur: Naim Batani

Source: VOLUME 39/04 of MASTERS ABSTRACTS.

PAGE 1217. 96 PAGES

Descriptors: ENGINEERING, ELECTRONICS AND ELECTRICAL  
Descriptor Codes: 0544  
Language: French  
ISBN: 0-612-57492-X

This report describes the stages of realization of various structures of digital filters. A detailed theoretical study of their stability thus a comparison of the characteristics. Finite-word-length effects are an important factor in implementation of **digital signal processing** systems. In this document we described the effects of a finite word length in digital filtering.

Specifically, we considered several parameters like quantization and round-off noise in multiplication.

These effects are internal to the filter and influence the method by which the system will be implemented. More specifically, we demonstrated high-order systems, especially IIR systems, should be realized by using second-order sections as building blocks. We advocated the use of the direct form II realization.

The state- **space formulation** provides an internal description of a system and, as a consequence, we obtained additional system realisation called state-space realizations. These realizations represent additional possible structures that provide good alternative candidate realization for the system.

As an alternative to use of direct form II second-order filters as building blocks for high-order filters, we can use second-order state-variable forms. Such state-variable forms can be optimized with respect to the state transition **matrix** to minimize round-off errors. The optimization leads to minimum-round-off-noise second-order state-variable filters that are highly robust for implementing narrowband filters present in the case we consider.

43/5/47 (Item 6 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
(c) 2004 ProQuest Info&Learning. All rts. reserv.

01738815 ORDER NO: AADAA-I9965320

**Quantifying habitat fragmentation as a spatial process in a patch-corridor-matrix landscape model**

Author: Bogaert, Jan Maarten

Degree: Ph.D.

Year: 2000

Corporate Source/Institution: Universitaire Instelling Antwerpen  
(Belgium) (0314)

Promoter: I. Impens

Source: VOLUME 61/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL.  
PAGE 1181. 209 PAGES

Descriptors: BIOLOGY, ECOLOGY ; BIOLOGY, BOTANY

Descriptor Codes: 0329; 0309

Habitat fragmentation is the process of breaking up continuous vegetations into dispersed remnants and thereby generating habitat loss, isolation of the habitats, and edge effects, the latter caused by interaction of the patches with their surroundings. Fragmentation—deservedly—has been denoted as a major threat to biological diversity. From the perspective of terrestrial ecosystems, fragmentation, inducing land cover change, is considered as an important component of global change. If compared with contiguous habitats, scattered fragments show more edges characterised by an altered microclimate and species diversity. This phenomenon, designated as the "edge effect", is observed at the patch boundary, and divides the patch in two zones: the edge and the undisturbed interior habitat. Spatial segregation of habitats influences their population dynamics: species become more prone to extinction and to inbreeding. Moreover, fragment size often doesn't exceed the minimum borne range of species.

This dissertation contributes to a quantitative approach towards fragmentation as a spatial process. Because of this, an improved assessment

of the ecological consequences and a comparison of different fragmentation patterns are enabled. Starting from the 'patch-corridor- matrix ' model, i.e. assuming that a landscape is composed of only patches, corridors and the **matrix** in which both are embedded, the quantification is firstly executed for the patch itself (e.g. size, perimeter, shape, interior-to-edge ratio). Secondly metrics are calculated at the landscape level (e.g. degree of isolation, number of patches). A key issue of this thesis is the development of reference values for fragment **area**, **shape**, number, isolation, perimeter and for the interior-to-edge ratio. Shape is assumed to be a combination of patch compactness and perimeter curvature. The reference values are based upon the comparison with a reference **area** and **shape**. For raster data, the reference values are also determined by the **pixel** geometry and by the resolution used (scale effect). Two methods are presented to quantify fragmentation at the landscape level. In the first method, different fragmentation descriptors are calculated. The vector length in a **multi - dimensional space** is used to represent the overall fragmentation status. The length is calculated as the Euclidean distance using the index value of each descriptor. The contribution of each fragmentation descriptor is then found by projecting the vector on the respective axis. In a second method, designed for raster images, different data layers are generated, each quantifying a different aspect of fragmentation. A 'moving window technique' is thereby applied. Regions, characterised by specific properties of fragmentation, can be identified using overlay operations. Spatial gradients of fragmentation can be detected in this way.

43/5/66 (Item 9 from file: 103)

DIALOG(R) File 103:Energy SciTec

(c) 2004 Contains copyrighted material. All rts. reserv.

02919999 EDB-90-137240; NTS-90-021192; ERA-15-046303

**Title: A manual for microcomputer image analysis**

Author(s)/Editor(s): Rich, P.M. (Stanford Univ., CA (USA). Dept. of Biological Sciences); Ranken, D.M.; George, J.S. (Los Alamos National Lab., NM (USA))

Corporate Source: Los Alamos National Lab., NM (USA) (Code: 9512470)

Sponsoring Organization: NSF;

Publication Date: Dec 1989

(76 p)

Report Number(s): LA-11732-M

Order Number: DE90015629

Contract Number (DOE): W-7405-ENG-36

Contract Number (Non-DOE): BSR86-14769

Document Type: Report

Language: In English

Journal Announcement: EDB9018

Availability: NTIS, PC A05/MF A01 - OSTI; GPO Dep.

Distribution: (Report):0 (MF):4 MN-000

Subfile: ERA (Energy Research Abstracts); ETD (Energy Technology Data Exchange); NTS (NTIS). TIC (Technical Information Center)

US DOE Project/NonDOE Project: P

Country of Origin: United States

Country of Publication: United States

**Abstract:** This manual is intended to serve three basic purposes: as a primer in microcomputer image analysis theory and techniques, as a guide to the use of IMAGE(copyright), a public domain microcomputer program for image analysis, and as a stimulus to encourage programmers to develop microcomputer software suited for scientific use. Topics discussed include the principals of image processing and analysis, use of standard video for input and display, spatial measurement techniques, and the future of microcomputer image analysis. A complete reference guide that lists the commands for IMAGE is provided. IMAGE includes capabilities for digitization, input and output of images, hardware display lookup table control, editing, edge detection, **histogram calculation**, measurement along lines and curves, measurement of areas, examination of intensity values, output of

analytical results, conversion between raster and vector **formats** , and region movement and rescaling. The control structure of IMAGE emphasizes efficiency, precision of measurement, and scientific utility. 18 refs., 18 figs., 2 tabs.

Major Descriptors: \*IMAGE PROCESSING -- COMPUTER ARCHITECTURE

Descriptors: COMPUTER GRAPHICS; COMPUTER OUTPUT DEVICES; DATA ACQUISITION; MANUALS; MICROPROCESSORS

Broader Terms: COMPUTERS; DOCUMENT TYPES; ELECTRONIC CIRCUITS; MICROELECTRONIC CIRCUITS; PROCESSING

Subject Categories: 990200\* -- Mathematics & Computers...

43/5/67 (Item 10 from file: 103)

DIALOG(R)File 103:Energy SciTec

(c) 2004 Contains copyrighted material. All rts. reserv.

02358985 AIX-20-054664; EDB-89-104956

Author(s): Lahrmann, H.

Title: **LSZ scattering theory in the quantum chromodynamics on a space-time lattice**

Original Title: Untersuchungen zur LSZ-Streutheorie im Rahmen der Quantenchromodynamik am Raum-Zeit-Gitter

Corporate Source: Technische Univ., Vienna (Austria)

Publisher: Technische Univ., Vienna, Austria

Publication Date: Mar 1987

p 73

Academic Degree: Diplomarbeit (Dipl. Ing.).

Document Type: Dissertation

Language: German

Journal Announcement: ETD8900

Availability: the Technical University Vienna, Karlsplatz 13, A-1040 Vienna, Austria.

Subfile: ETD (Energy Technology Data Exchange). INIS (non-US Atomindex input AIX)

Country of Origin: Austria

Country of Publication: Austria

Abstract: In principle, it should be possible to compute the scattering **matrix** for hadron-hadron systems on the basis of quantumchromodynamics in the frame of the LSZ-formalism. The obtained **matrix** -elements can be **compared** to experimental **data** . The Green's function in momentum space represents the most important part of the LSZ-formula, containing any kind of information about the scattering-process. In order to obtain the propagator in momentum space we consider two methods. On the one hand, the pathintegral is **formulated** directly in momentum **space** . Various descriptions of the fermion- **matrix** and the gluonic part of the action are analysed. On the other hand, it is possible to simulate the meson-propagator by means of Monte-Carlo integration in **configuration space** . Subsequently, an algorithm of fast Fourier transform can be used to derive the Green's function in momentum space. Comparing the above approaches, we find the second procedure to be the more convenient one. Finally, estimations with respect to the required CPU-times are presented. 33 refs., 3 figs.

Major Descriptors: \*FERMIONS -- PROPAGATOR; \*HADRON-HADRON INTERACTIONS -- ELASTIC SCATTERING

Descriptors: COMPUTERIZED SIMULATION; GLUONS; GREEN FUNCTION; LATTICE FIELD THEORY; LSZ THEORY; MONTE CARLO METHOD

Broader Terms: AXIOMATIC FIELD THEORY; ELEMENTARY PARTICLES; FIELD THEORIES ; FUNCTIONS; INTERACTIONS; PARTICLE INTERACTIONS; POSTULATED PARTICLES; QUANTUM FIELD THEORY; SCATTERING; SIMULATION

Subject Categories: 645204\* -- High Energy Physics -- Particle Interactions & Properties-Theoretical -- Strong Interactions & Properties

43/5/84 (Item 6 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

5694596 INSPEC Abstract Number: B9710-6140C-496, C9710-5260B-303

**Title: Handling of facial features using face space**

Author(s): Delloye, O.; Kaneko, M.; Harashima, H.

Author Affiliation: Sch. of Eng., Tokyo Univ., Japan

Journal: Transactions of the Institute of Electronics, Information and Communication Engineers A vol.J80-A, no.8 p.1332-6

Publisher: Inst. Electron. Inf. & Commun. Eng.

Publication Date: Aug. 1997 Country of Publication: Japan

CODEN: DJTAER ISSN: 0913-5707

SICI: 0913-5707(199708)J80A:8L:1332:HFFU;1-U

Material Identity Number: K838-97009

Language: Japanese Document Type: Journal Paper (JP)

Treatment: Theoretical (T); Experimental (X)

Abstract: Face Space" is a **multi - dimensional space** composed of **eigenvectors** which are obtained by principal analysis on each face shape and face texture. This paper presents a method to change facial features by projecting the input facial image onto the subspace composed of multiple facial images having the same certain facial features. This makes it possible to change facial features such as race, sex and age. Experimental results are shown to demonstrate the projection from man's face to woman's face. (4 Refs)

Subfile: B C

Descriptors: eigenvalues and eigenfunctions; face recognition; feature extraction; image texture

Identifiers: facial features; face space; **multi - dimensional space**; **eigenvectors**; principal analysis; face texture; face shape; input facial image; multiple facial images; race; sex; age

Class Codes: B6140C (Optical information, image and video signal processing); B0290H (Linear algebra); C5260B (Computer vision and image processing techniques); C1250 (Pattern recognition); C4140 (Linear algebra)

Copyright 1997, IEE

43/5/95 (Item 17 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

04378358 INSPEC Abstract Number: A9310-4230-005, B9305-6140C-106, C9305-5260B-044

**Title: Optical-digital method of local histogram calculation by threshold decomposition**

Author(s): Kober, V.; Cichocki, T.; Gedziorowski, M.; Szoplik, T.

Author Affiliation: Inst. of Geophys., Warsaw Univ., Poland

Journal: Applied Optics vol.32, no.5 p.692-8

Publication Date: 10 Feb. 1993 Country of Publication: USA

CODEN: APOPAI ISSN: 0003-6935

U.S. Copyright Clearance Center Code: 0003-6935/93/050692-07\$05.00/0

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: A theorem for calculating the local histograms of a gray-scale input image by means of convolution of input-image binary slices with a binary kernel is presented and proved. The calculation of the local histograms of a gray-scale image for all resolution cells and its arbitrary neighborhoods is optically implemented in a shadow-casting correlator. The choice of different rank-order values from the local histograms can lead to a wide spectrum of nonlinear filtration algorithms. (18 Refs)

Subfile: A B C

Descriptors: image processing; optical correlation; optical images; optical logic; parallel processing

Identifiers: optical-digital method; optical correlators; parallel processing; optical logic; digital arithmetic; spatial filters; image processing; local **histogram calculation**; threshold decomposition; gray-scale input image; convolution; input-image binary slices; binary kernel; gray-scale image; resolution cells; arbitrary neighborhoods; optically implemented; shadow-casting correlator; rank-order values;



nonlinear filtration algorithms

Class Codes: A4230V (Image processing and restoration); B6140C (Optical information and image processing); B4180 (Optical logic devices and optical computing techniques); C5260B (Computer vision and picture processing); C5270 (Optical computing techniques)

**43/5/96 (Item 18 from file: 2)**

DIALOG(R) File 2:INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

04336874 INSPEC Abstract Number: C9303-5260B-048

**Title: Hybrid method of local histogram calculation by threshold decomposition**

Author(s): Kober, V.; Szoplik, T.

Conference Title: DIP 92. Proceedings of the Third International Seminar on Digital Image Processing in Medicine, Remote Sensing and Visualization of Information p.148-52

Publisher: Inst. Electron. Comput. Sci. Latvian Acad. Sci, Riga, Latvia

Publication Date: 1992 Country of Publication: Latvia xii+189 pp.

Conference Sponsor: Res. Production Co-operative Processor; Assoc. Image Processing Club

Conference Date: 21-25 April 1992 Conference Location: Riga, Latvia

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P); Theoretical (T)

Abstract: A parallel optical-digital method of local histograms calculation of a gray-scale image by means of convolution of binary image slices with a binary kernel are presented. Calculation of the local histograms of a gray-scale image for all resolution cells and its arbitrary neighborhoods is optically implemented in a shadow **casting** correlator. (3 Refs)

Subfile: C

Descriptors: image processing; parallel algorithms

Identifiers: parallel method; local **histogram calculation**; threshold decomposition; gray-scale image; convolution; binary image slices; binary kernel

Class Codes: C5260B (Computer vision and picture processing); C4240P (Parallel programming and algorithm theory)

**43/5/100 (Item 22 from file: 2)**

DIALOG(R) File 2:INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

01094971 INSPEC Abstract Number: B77031491, C77020778

**Title: Matrices. XII**

Author(s): Van Swaay, F.X.C.

Journal: Polytechnisch Tijdschrift Werktuigbouw vol.32, no.6 p. 336-9

Publication Date: June 1977 Country of Publication: Netherlands

CODEN: PTWTAP ISSN: 0032-4108

Language: Dutch Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: For pt.XI see *ibid.*, vol.32, no.5 (1977). Matrix methods are outlined for the development of vectors in **multi-dimensional space** from given vectors, with a note on eigenvalues. An application of the Cayley-Hamilton theorem is quoted. A section is devoted to the formation of Rayleigh-Schwartz quotients in symmetrical matrices. A deflation method described forms a new matrix from values derived from the **eigenvectors** of the first matrix. Another matrix reduction method noted proceeds by row and column condensation to form a smaller matrix than the original. (0 Refs)

Subfile: B C

Descriptors: eigenvalues and eigenfunctions; matrix algebra; vectors

Identifiers: vectors; deflation method; **eigenvectors**; matrix reduction method; matrices; Rayleigh Schwartz quotients; **multidimensional space**; eigenvalues; Cayley Hamilton theorem

Class Codes: B0210 (Algebra); C1110 (Algebra)

43/5/110 (Item 1 from file: 6)  
DIALOG(R) File 6:NTIS  
(c) 2004 NTIS, Intl Cpyrght All Rights Res. All rts. reserv.

2187651 NTIS Accession Number: ADA384423/XAB

**Partially Structured Matrices and Numerically Reliable Displacement Algorithms**

(Final rept. 1 May 1996-30 Apr 2000)

Kailath, T.

Stanford Univ., CA.

Corp. Source Codes: 009225000; 332550

Report No.: ARO-35645.20-MA

Jul 2000 13p

Languages: English

Journal Announcement: USGRDR0107

Product reproduced from digital image. Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)605-6900; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A03/MF A01

Country of Publication: United States

Contract No.: DAAH04-96-1-0176

Many problems in linear prediction, signal processing digital filtering and in several other areas can be formulated in terms of structured matrices and their inverses. Most of the algorithms which respect the structure in Matrices suffer from propagation of round-off errors. Hence all the prevalent mathematical software tools explore structure ignoring methods. We studied the problem of designing fast and numerically accurate algorithms which respect the partial structure in matrices. We also studied the problem of extending and applying the structured matrix computations to problems in H infinity filtering, inverse scattering, adaptive filtering and recursive updates. We also looked into the development of robust estimation schemes for data fusion scenarios and to study the performance limits of several adaptive schemes. We have also studied how structured matrix factorizations can be used to develop new structures for sub-band adaptive filtering. The mixed H sub 2/H infinity approach to controller design is an attempt to incorporate optimal performance and guarantee robustness, arguably the two most desirable properties, into a single controller. The robust performance problem formulated in the mixed H sub 2/H infinity framework largely remains an open problem. In this study, using a number of ideas from convex optimization theory, we have developed an efficient numerical approach to design fixed order mixed controller. In another study, we looked into the problem of designing equalizers for communication channels from an H infinity point of view.

Descriptors: Algorithms; \* Matrices (Mathematics); \*Numerical methods and procedures; Signal processing; Linear systems; Mathematical filters; Adaptive filters; Data fusion; Inverse scattering; Digital filters

Identifiers: Structured matrices ; NTISDODXA; NTISDODA

Section Headings: 72B (Mathematical Sciences--Algebra, Analysis, Geometry, and Mathematical Logic); 63F (Detection and Countermeasures--Optical Detection)

43/5/114 (Item 5 from file: 6)  
DIALOG(R) File 6:NTIS  
(c) 2004 NTIS, Intl Cpyrght All Rights Res. All rts. reserv.

1316876 NTIS Accession Number: N87-24794/6

**Digitization of Metric Camera and Large Format Camera Space Photographs**

Lohmann, P. ; Luhmann, T.

Hanover Univ. (Germany, F.R.). Inst. for Photogrammetry and Engineering Surveys.

Corp. Source Codes: 069173049; TJ491696

Sponsor: National Aeronautics and Space Administration, Washington, DC.  
Nov 86 5p  
Languages: English  
Journal Announcement: GRAI8720; STAR2518  
In ESA Proceedings of the International Symposium on Progress in Imaging  
Sensors, p465-469.  
NTIS Prices: (Order as N87-24738, PC A99/MF A01)  
Country of Publication: Germany, Federal Republic of  
Black and white images of the space shuttle experiments Metric Camera and  
Large Format Camera were digitized. Investigations show that it is possible  
to digitize space photographs at an accuracy which corresponds to the  
resolution of the film. It is demonstrated that the choice of a too small  
**pixel** size leads to a loss in the detectability of details within the  
images because of the apparent film grain. The reseau-scanner Rollei RS1  
can cope with the high requirements in terms of geometric accuracy and  
resolution necessary for photogrammetric applications.  
Descriptors: Analog to digital converters; \*Image analysis; \*Metric  
photography; \*Spaceborne photography; Space shuttle payloads; **Digital**  
**data** ; Geometric accuracy; Image resolution; Photogrammetry; Photographic  
emulsions  
Identifiers: \*Foreign technology; NTISNASAE  
Section Headings: 82B (Photography and Recording Devices--Photographic  
Techniques and Equipment)

43/5/126 (Item 5 from file: 239)  
DIALOG(R) File 239:Mathsci  
(c) 2004 American Mathematical Society. All rts. reserv.

02126980 MR 90b#68096

**Spatial structure and the microcomputer.**

Selected mathematical techniques.

Barrett, A. N. (Department of Mathematics and Statistics, Brunel  
University, Uxbridge, UB8 3PH, England)

Mackay, A. L. (Department of Crystallography, Birkbeck College, London,  
WC1E 7HX, England)

Corporate Source Codes: 4-BRNL; 4-LNDBK-CR

Publ: Macmillan Education Ltd., Basingstoke,  
1987, x+204 pp. ISBN: 0-333-39284-1

Series: Macmillan Computer Science Series.

Price: Sterling12.95.

Language: English

Document Type: Book

Journal Announcement: 2106

Subfile: MR (Mathematical Reviews) AMS

Abstract Length: LONG (88 lines)

This book provides fundamentals for using a microcomputer for the purpose  
of representation and analysis of spatial structures. It is divided into  
eleven chapters, followed by an extensive appendix of computer programs.  
The following is a brief survey of the contents of the book: Chapter 1,  
``Introduction'', presents the authors' philosophy for solving problems by  
algorithmic procedures on microcomputers. Chapter 2, ``Mathematical  
processes for computation'', describes elementary procedures for numerical  
integration and differentiation and introduces the concepts of vectors and  
complex numbers. Chapter 3, ``Matrices'', explains the fundamentals of  
matrix algebra, such as multiplication and inversion of matrices,  
eigenvalues and **eigenvectors**, and shows how to employ matrix methods for  
the solution of systems of linear and nonlinear equations. Chapter 4,  
``Coordinate systems'', introduces the concepts of Cartesian, cylindrical  
and spherical coordinates and shows how to compute areas, volumes,  
distances and angles and how to describe lines, planes, spheres and other  
geometric forms in these systems. Two important applications, treated in  
some detail, are the determination of crystallographic and orthonormal axes  
(which are needed for determining the shapes of molecules) and the solution  
of network equations for a given framework of nodes and branches.

Chapter 5, ``Geometry on the sphere: Spherical trigonometry'', treats  
the performance of elementary computations in spherical trigonometry and

describes the most common methods used in geography for projecting the globe onto a plane. Also discussed are the problems of packing  $N$  points on to the surface of a sphere so that they should be the maximum distance apart and arranging points at random on the surface of a sphere. Chapter 6, "APL--A higher level language", introduces the reader to the conciseness of APL in comparison with BASIC, the standard programming language used throughout most of this book,

Chapter 7, "The partition of space into domains", is concerned with the division of **multidimensional space** into regions of influence, exemplified by the division of a plane containing centers into Voronoi polygons, one surrounding each point, so that every point in a particular (necessarily convex) polygon is nearer to its center than to any other center. Chapter 8, "The best fit between two shapes or molecules", concerns the comparison of two objects, such as a pair of molecules, which is accomplished by matching one array of points in space against another correspondingly numbered set. The tools described for dealing with this problem are quaternion algebra and the Gram-Schmidt procedure for transforming oblique axes to orthogonal Cartesian axes.

Chapter 9, "Pattern generation", treats graphics display problems, such as modelling the motion of three bodies that act one on each other through gravitational forces, and describes the basics of programs (given in the appendix) that create Fibonacci patterns, Penrose patterns and Julesz patterns (which are used in a test for stereo perception). Chapter 10, "Fourier transforms", discusses the fundamental theory of Fourier transforms applied to both continuous and discrete data sets. Particular attention is paid to the FFT (fast Fourier transform) and other methods which rearrange the organization of the data in order to optimize processing times. Chapter 11, "Applications and other transformations", illustrates the application of the FFT to the processes of convolution and correlation in one-dimensional situations and introduces Walsh and Hadamard transforms, which are of particular interest in image and data analysis. The appendix, "Computer programs for numerical and geometrical analysis", provides 32 programs that illustrate many of the methods discussed in the text; 28 programs are written in BASIC, the remainder in APL. Simple examples demonstrate the runnings of most of the programs.

The well-written text is marred by a considerable number of misprints, which are particularly annoying when occurring in mathematical formulas. Some sample misprints follow: In the fifth line of formulas on page 14, "FSQI" should read "FSQR" and "\$-0.5" should be replaced by "+0.5". In the sixth line of formulas on this page, "\$\%" should be replaced by 5. In the third line of formulas on page 89, "\$\exp(-2\pi i u-1)\$" should be replaced by "\$[\exp(-2\pi i u)-1]\$". In the fourth line of formulas on this page, "\$1/2\pi i\$" should read "\$1/2\pi i u\$". In the formula for "\$F(u,v)\$" on page 91, the upper limit "\$N-1\$" upon the first of the two summation symbols should be replaced by "\$M-1\$". On page 97, it is implied that dividing "\$N\sp 2\$" by "\$N\sp \*\log\sb 2N\$" for "\$N=2\sp {13}=8,192\$" results in 67. But the correct result of this operation is \$630.15\cdots\$. On page 99, "\$\ldots\$" since "\$W\sb M\sp {u+M}\$" and "\$W\sb {2M}\sp {u+M}=-W\sb {2M}\sp u, \ldots\$" should read "\$\ldots\$" since "\$W\sb M\sp {u+M}=W\sb M\sp u\$" and "\$W\sb {2M}\sp {u+M}=-W\sb {2M}\sp u, \ldots\$". In the middle of page 128, the evaluation of "\$g(x,u)\$" yields "\$-1/N\$" (instead of "\$1/N\$").

The main value of this book is that it demonstrates how a microcomputer (a typical present-day personal computer) can be employed for a wide range of impressive display tasks by the use of a modest number of simple algorithmic programs.

Reviewer: Dishon, Menachem (Tel Aviv)

Review Type: Signed review

Descriptors: \*68U05 -Computer science (For papers involving machine computations and programs in a specific mathematical area, see section --04 in that area)-Computing methodologies-Computer graphics; computational geometry ; 00A69 -General-General applied mathematics (For cross-reference to reviews printed in Sections 70 through 86, use 00A89); 42-04 -Fourier analysis-Explicit machine computation and programs (not the theory of computation or programming); 65-04 -Numerical analysis-Explicit machine computation and programs (not the theory of computation or programming)

Set	Items	Description
S1	14	HISTOGRAM() CALCULATION
S2	8229433	SHAPE? OR FORM? OR PATTERN? OR CONFIGURATION? OR CAST? OR - FIGURE?
S3	66024	S2 (3N) (SPACE? OR AREA?)
S4	376524	PIXEL? OR PIX() ELEMENT? OR GRAPH OR MATRIX? OR MATRICES
S5	204	(MULTIDIMENSIONAL OR MULTI() DIMENSIONAL) () (SPACE? OR AREA?)
S6	328901	(DIGITAL OR ELECTRONIC) (2N) (SIGNAL? OR DATA OR FREQUENCY OR FREQUENCIES OR WAVE? ? OR PULSE? ? OR WAVEFORM?)
S7	385	EIGENVECTOR? OR (SEQUENCE OR ORDER OR CONSECUTIVE) () (BINARY OR TWO) () NUMBERS
S8	157789	(SYNCHRONIZATION? OR SYNCHRONISATION? OR SYNC OR MATCH? OR COMPAR? OR ACCORD?) (2N) (SIGNAL? OR DATA OR FREQUENCY OR FREQU- ENCIES OR WAVE? ? OR PULSE? ? OR WAVEFORM?)
S9	485	CENTER() GRAVITY OR IDENTIFY? () REGION?
S10	14172	(INCREMENT? OR ADD OR ADDING OR ADDITION) (2N) (COUNTER? OR - ADDER? OR TRACK? OR METER?)
S11	2372024	COUNTER? OR ADDER? OR TRACK? OR METER?
S12	8361	(CONSECUTIVE OR SEQUENCE OR ORDER) (2W) (FRAME? OR WINDOW? OR VIEW? OR VISUAL OR SCREEN?)
S13	1649375	VALID? OR AUTHENTICAT? OR VERIF? OR CERTIF?
S14	0	S1 AND S3
S15	6	S1 AND S2
S16	4193	S3 AND S4
S17	14	S16 AND S5
S18	14	S16 AND S7
S19	311	S16 AND S6
S20	0	S19 AND S7
S21	36	S19 AND S8
S22	0	S1 AND S9
S23	0	S19 AND S9
S24	1	S16 AND S9
S25	0	S1 AND S9
S26	7	S19 AND S10
S27	12	S19 AND S12
S28	196	S19 AND S11
S29	6	S3 AND S9
S30	2	S7 AND S9
S31	14	S8 AND S9
S32	113	S1 OR S15 OR S17 OR S18 OR S21 OR S24 OR S26 OR S27 OR S29 OR S30 OR S31
S33	97	S32 NOT PY>2001
S34	92	S33 NOT PD>20010223
S35	80	RD (unique items)
File	15:ABI/Inform(R)	1971-2004/Nov 05 (c) 2004 ProQuest Info&Learning
File	810:Business Wire	1986-1999/Feb 28 (c) 1999 Business Wire
File	647:CMP Computer Fulltext	1988-2004/Oct W4 (c) 2004 CMP Media, LLC
File	275:Gale Group Computer DB(TM)	1983-2004/Nov 05 (c) 2004 The Gale Group
File	674:Computer News Fulltext	1989-2004/Sep W1 (c) 2004 IDG Communications
File	696:DIALOG Telecom. Newsletters	1995-2004/Nov 04 (c) 2004 The Dialog Corp.
File	621:Gale Group New Prod. Annou. (R)	1985-2004/Nov 05 (c) 2004 The Gale Group
File	636:Gale Group Newsletter DB(TM)	1987-2004/Nov 05 (c) 2004 The Gale Group
File	813:PR Newswire	1987-1999/Apr 30 (c) 1999 PR Newswire Association Inc
File	613:PR Newswire	1999-2004/Nov 05 (c) 2004 PR Newswire Association Inc
File	16:Gale Group PROMT(R)	1990-2004/Nov 05 (c) 2004 The Gale Group
File	160:Gale Group PROMT(R)	1972-1989

(c) 1999 The Gale Group

File 553:Wilson Bus. Abs. FullText 1982-2004/Sep

(c) 2004 The HW Wilson Co

35/5,K/1 (Item 1 from file: 15)  
DIALOG(R)File 15:ABI/Inform(R)  
(c) 2004 ProQuest Info&Learning. All rts. reserv.

02484972 116349596

\*\*USE FORMAT 9 FOR FULL TEXT\*\*

**A walk-through programmed robot for welding in shipyards**

Ang, Marcelo H Jr; Lin, Wei; Lim, Ser-Yong  
Industrial Robot v26n5 PP: 377 1999 CODEN: IDRBAT ISSN: 0143-991X  
JRNL CODE: IRO  
DOC TYPE: Periodical; Feature LANGUAGE: English RECORD TYPE: Fulltext  
WORD COUNT: 5901

ABSTRACT: Automating the welding process for the shipbuilding industry is very challenging and important, as this industry relies heavily on quality welds. Conventional robotic welding systems are seldom used because the welding tasks in shipyards are characterized by non-standardized workpieces which are large but small in batch sizes. Furthermore, geometries and locations of the workpieces are uncertain. To tackle the problem, a Ship Welding Robot System (SWERS) has been developed for the welding process. The main features of the SWERS include a special teaching procedure that allows the human user to teach the robot welding paths at a much easier and faster pace. In addition, operation of the system is made easier through a custom designed man-machine interface. Through this interface, only a few buttons need to be pressed to command the robot into different modes. Optimized welding parameters can be selected from a large database through a Graphical User Interface system.

DESCRIPTORS: Robots; Welding; Shipbuilding

CLASSIFICATION CODES: 8680 (CN=Transportation equipment industry); 9130

(CN=Experimental/Theoretical); 5240 (CN=Software & systems)

PRINT MEDIA ID: 11965

...TEXT: is in terms of operational co-ordinates ( $[\epsilon] \cdot [\text{Real}]^6$ ). In terms of the homogeneous transformation **matrices**, Equation (5) becomes (Paul, 1981):(see equation 6)

where  ${}^B T_c$ ,  ${}^B T_E$ ...flux-cored wire arc welding used for the panel line welding. The power source is controlled by **digital** and analogue **signals** via the system I/O board in the robot controller.

By means of the push-pull control... the desired welding data for leg length, wire type, welding mode and number of passes. The selected **data** are **matched** with the default and optimised values of the welding parameters such as current, voltage, speed, oscillation etc...7. Khatib, O. (1987, "A unified approach to motion and force control of robot manipulators: the operational **space formulation**", IEEE Journal of Robotics and Automation, Vol. 3 No. 1, pp. 43-53.

8. Lawrence, D.A...

35/5,K/4 (Item 4 from file: 15)  
DIALOG(R)File 15:ABI/Inform(R)  
(c) 2004 ProQuest Info&Learning. All rts. reserv.

02271886 86064194

\*\*USE FORMAT 9 FOR FULL TEXT\*\*

**Application of cluster analysis to fabric classification**

Chen, Y; Collier, B J; Collier, J R  
International Journal of Clothing Science & Technology v11n4 PP: 206-215  
1999 CODEN: ICSTEH ISSN: 0955-6222 JRNL CODE: CST  
DOC TYPE: Periodical; Feature LANGUAGE: English RECORD TYPE: Fulltext  
WORD COUNT: 2543

ABSTRACT: Twenty-seven instrumental variables were obtained using KES-FB

instruments to measure fabric physical properties. A cluster analysis was undertaken on a framework of multidimensional vectors composed of these variables. Using the nearest centroid sorting technique of clustering, 90 commercial fabrics having a variety of fiber contents and fabric structures were classified into four clusters based on apparel end-use. This result illustrated application of the disjoint clustering method in classifying apparel fabrics objectively, and could offer guidance to fabric and garment manufacturers in fabric selection, fabric proper use, and new fabric categorization.

DESCRIPTORS: Fabrics; Studies; Cluster analysis; Variables

CLASSIFICATION CODES: 9130 (CN=Experimental/Theoretical); 8620 (CN=Textile & apparel industries)

PRINT MEDIA ID: 11858

...TEXT: Kawabata data set, the four proposed fabric clusters were partitioned. Each cluster should occupy a room in **multidimensional space**. To describe the "neighborhood" among these four clusters, the Mahalanobis distance (Lindeman et al., 1980) can be...

... indicate mean values of  $x$  related to fabric cluster  $i, j$ ;  $V[\sup]-1$  is the inverse **matrix** of covariance **matrix**  $V$ . The obtained distance **matrix** is given in Table IV.

A graphical way to explain how well the four fabric clusters differ...

... scores  $Z_1, Z_2$ , and  $Z_3$ , allowing the four classified fabric clusters to be plotted in three-dimensional **space**, as shown in **Figure 1**.

#### 4.3 Critical factors for portraying end-use

To reveal the importance of the individual mechanical...

... al., 1980) can be expressed as: (see equation 10) where (see equation 11)  $C$  is a pattern **matrix** in which elements are loadings of each of the  $n$  KES-FB parameters ( $n = 16$ ) on each of the  $m$  factors ( $m = n$ );  $F$  is the factor score **matrix**, and  $N$  is number of measured samples ( $N = 90$ ).  $Z$  is a standardized raw data **matrix**, in which  $z[\sub]ji$  is the standardized value of  $x[\sub]ji$ , the observation of the...

...fabric clusters, which are objectively described by the KES-FB variables having correlated values (as shown in **matrix**  $C$ ) to these factors. Factors with eigenvalues greater than one (Kaiser, 1960) were retained. An orthogonal rotation...

35/5,K/48 (Item 10 from file: 275)

DIALOG(R) File 275:Gale Group Computer DB(TM)

(c) 2004 The Gale Group. All rts. reserv.

01590052 SUPPLIER NUMBER: 13511248 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**The Windows Sources catalog. (Buyers Guide)**

Dennis, Kathryn

Windows Sources, v1, n3, p483(16)

April, 1993

DOCUMENT TYPE: Buyers Guide ISSN: 1065-9641 LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 12338 LINE COUNT: 01057

ABSTRACT: Information is listed on several categories of Windows products: databases, data query languages, help desk, illustration, personal finance, project management, report management, security and auditing software, speech/music synthesis, spreadsheets, text editors, and word processing. The entry for each product includes the name, telephone and fax numbers of the vendor, the price, system requirements, and a description of the product and its features.

DESCRIPTORS: DBMS; Query Languages; Management of EDP; Graphics Software;



.Project Management Software; Software Packages; Report Generation  
Software; Systems/Data Security Software; Music Synthesizer; Voice  
Synthesis; Spreadsheet Software; Program Editor; Word Processing Software  
SIC CODES: 7372 Prepackaged software  
OPERATING PLATFORM: MS Windows  
FILE SEGMENT: CD File 275

... illustration tool. Transfer data among other PM applications using  
OS/2 clipboard. Imports data from Micrografx's **Graph** Plus and Draw Plus  
packages.

Draw 2.0 for Windows

COMPUTEREASY INTERNATIONAL, INC. 800-522-3279, 602...

...locking and unlocking, horizontal/vertical flipping, text rotation,  
menu-making capability, import/export from/to Windows Metafile **format** ,  
resizable text **areas** , 25 PostScript fonts, and 500 clip art items.

Fractal Design Painter 2.0 for Windows

FRACTAL DESIGN...800-227-4679, 206-882-8080 Fax: 206-883-8101 \$70

Requires: 1MB, 1.5MB hard disk **space**

**Forms** -based checkbook program designed for small businesses and  
home users. Allows users to balance variety of accounts...

...user to sort transactions in check register or statement based on date,  
check number, amount or original **order** , and **view** check register to see  
running balance. Prints checks on check forms and with any printer  
supported by...438-8901 Fax: 617-438-0311 \$379 (source code incl.)

Requires: 250K RAM, 1.5MB hard disk **space**

Consists of **form** editor and report executer. Includes multiple  
files, multiple sorts, data, calculation, system and dialog fields, bold,  
underline...4500 Fax: 914-738-6946 \$130 Requires: 2MB RAM, 1MB hard disk  
space, VGA adapter or better

**Digital** audio **wave** editor for PC sound cards and MPCs.

AudioVision 2.0

SPECTRAL SYNTHESIS, INC. 206-487-2931 Fax...forecasting, budgeting,  
planning, diagnosing, and risk assessment. Merges and weighs conflicting  
points of view to produce Belief **Graph** .

I Hate Algebra 1.5

T/MAKER RESEARCH CO. 408-866-0127 Fax: 408-866-0129 \$39...

800-227-5609, 415-382-8000 Fax: 415-883-1629 \$119 Requires: 2MB RAM, 10MB  
hard disk **space**

Provides text **formatting** , page layout, context-sensitive help

35/5,K/58 (Item 20 from file: 275)

DIALOG(R) File 275:Gale Group Computer DB(TM)

(c) 2004 The Gale Group. All rts. reserv.

01290052 SUPPLIER NUMBER: 07102870 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Abstracts from other ACM publications.**

Communications of the ACM, v32, n3, p382(5)

March, 1989

ISSN: 0001-0782

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 5564

LINE COUNT: 00476

FILE SEGMENT: CD File 275

... term using rules presented below. We call this process of  
abstracting a lambda term, reducing to normal **form** in the **space** of DSC  
terms, and translating back to a lambda term an implementation.

We show that our implementation...frequency of procedure calls. An  
interprocedural register allocation algorithm is developed by simplifying a  
version of interprocedural **graph** coloring. The simplification corresponds  
to a bottom-up coloring of the interference **graph** . The scheme is  
evaluated using a number of LISP programs. The evaluation considers the  
scheme's limitations...of the Association for Computing Machinery January  
1989

Incremental Modular Decomposition

Modular decomposition is a form of **graph** decomposition that has been discovered independently by researchers in **graph** theory, game theory, network theory, and other areas. This paper reduces the time needed to find the modular decomposition of a **graph** from  $\Omega(n^3)$  to  $\Omega(n^2)$ . Together with a new algorithm for transitive orientation given in [21], this leads to fast new algorithms for a number of problems in **graph** recognition and isomorphism, including recognition of comparability graphs and permutation graphs. The new algorithm works by inserting...

...of asynchronous circuits of both gate and MOS type. A basic network model consisting of a directed **graph** and a set of vertex excitation functions is introduced. A race analysis model, using three values (0... computationally feasible dominance relations to infer the orderings of application objects, thereby implicitly enumerating a finite solution **space**. The **formalism** is broad enough to apply the computational strategies of dynamic programming and branch and bound to problems...toward dynamic collections. In this case, one representation reduces each rectangle to a point in a higher **multidimensional space** and treats the problem as one involving point data. The other representation is area based--that is...be achieved on a variety of full-color, high-resolution, high-refresh-rate, raster-scan displays with **pixel** rates of up to 400 MHz.

For Correspondence: National Semiconductor, 2900 Semiconductor Drive, MS 16-181, Santa...

35/5,K/61 (Item 3 from file: 621)

DIALOG(R) File 621:Gale Group New Prod.Annou.(R)

(c) 2004 The Gale Group. All rts. reserv.

01284233 Supplier Number: 45366643 (THIS IS THE FULLTEXT)

**PCI Bus Image Processor With Frame Grabber and Nigh Resolution Display**

News Release, pN/A

March, 1995

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 581

TEXT:

For further information contact:

Bonnie Pietragallo

Corporate Communications Manager

Univision Technologies Incorporated

Three Burlington Woods

Burlington, MA 01803

(617) 221-6700

PCI Bus Image Processor With

Frame Grabber and Nigh Resolution Display

Burlington, MA (March, 1995) - - Many of today's Machine Vision, Image Analysis, Remote Sensing, Industrial Inspection and Medical Imaging applications require low-cost, high performance image processing on the powerful new local bus based PCs. To meet these requirements, Univision Technologies is announcing the Falcon-PCI, a single board image processing product with a built-in Super VGA display and up to 40 MHz analog frame grabber for the PCI Local Bus. Based on the Texas Instruments TMS320C31 Digital Signal Processor, the low cost, single slot, PCI Bus Falcon-PCI achieves performance levels previously available only in very expensive, multi-board systems.

By combining the Falcon-PCI and its Super VGA compatible display with a built- in Frame Grabber, up to 1024 x 1024 x 8 bit images can be captured, with Areas of Interest processed and displayed at 60 1 lz non-interlaced on a standard VGA monitor or higher. The Falcon=PCI also captures standard RS-170 or CClR video for processing and display on inexpensive, flier free VGA monitors.

The Falcon-PCI optionally supports up to 40 MHz analog acquisition. The RS- 343 input option allows capture of images up to 1280 x 1

024'x 8 bits from analog video sources such as cameras and medical devices. Moreover, the Falcon-PCI's 4 megabytes of high speed VRAM memory allow the captured image to be viewed at up to 1280 x 1024 resolution and at up to 72 Hz non-interlaced refresh rates... A distinguishing feature of the Falcon-PCI is the 8 bit Super VGA image memory and the additional 8 bits of independent overlay memory that can be displayed in either pseudocolor or gray scale. The entire Falcon-PCI occupies only one PCI Bus card slot, including the onboard VGA output circuitry.

The memory expansion option, available in totals of 8,16,32 and 64 megabytes, allows for the storage and processing of multiple frames and provides a built-in Cineloop capability. Additionally, the Falcon-PCI's digital interface option can capture, at up to 2048 x 2048 resolution, process, and display images from the Kodak MegaPlus family of high resolution digital cameras, including the Models 1.4,1.6,4.2 and XHF as well as the Pulnix TML 000.

According to Jim RoweIl, Univision's Vice President of Sales and Marketing, "The Falcon-PCI's special 05P based architecture enables a variety of Area of Interest image processing functions to be performed at high speed, such as; **histogram calculation**, two dimensional integer and floating point convolutions, forward and ;nverse FFTs and a variety of frame averaging operations."

Software support for the Falcon-PCI is provided by the Falcon Toolbox Software (FTB).. The FTB is a robust ANSI standard "C" callable image processing library available for DOS, Windows 3.1 and Windows HT. The library includes "high level" routines which enable easy operation of the image processing, frame grabbing and display functions supported by the Falcon-PCI hardware. The FTB -software turns the Falcon-PCI into a sophisticated, but low cost image processing system.

Additionally, the Falcon-PCI command interpreter enables immediate, interactive command execution of the FTB functions.

The Falcon-PCI has a base U.S. List Price of \$ 2,495. OEM discounts are available. Volume shipments will begin in April, 1995.

Univision Technologies designs, manufactures and markets a family of high performance graphics and imaging products for 15A, PCI, MicroChannel, VL and VME bus host systems. .'

COPYRIGHT 1999 Gale Group

COPYRIGHT 1995 Various

PUBLISHER NAME: Various

COMPANY NAMES: \*Univision Technologies Inc.

EVENT NAMES: \*330 (Product information)

GEOGRAPHIC NAMES: \*1U1MA (Massachusetts)

PRODUCT NAMES: \*3662650 (Image Processing Equip)

INDUSTRY NAMES: , BUS (Business, General); BUSN (Any type of business)

NAICS CODES: 334119 (Other Computer Peripheral Equipment Manufacturing)

TRADE NAMES: Falcon-PCI; FALCON PCI

... a  
variety of Area of Interest image processing functions to be performed at high speed, such as; **histogram calculation**, two dimensional integer and floating point convolutions, forward and ;nverse FFTs and a variety of frame averaging...

35/5,K/74 (Item 5 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2004 The Gale Group. All rts. reserv.

02504489 Supplier Number: 43310976 (USE FORMAT 7 FOR FULLTEXT)

**Harris adds histogram chip**

Electronic Engineering Times, p68

Sept 21, 1992

ISSN: 0192-1541

Language: English . Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 152

PUBLISHER NAME: CMP Publications, Inc.

COMPANY NAMES: \*Harris Corp. Semiconductor Group  
EVENT NAMES: \*330 (Product information)  
GEOGRAPHIC NAMES: \*1USA (United States)  
PRODUCT NAMES: \*3674180 (Integrated Circuits by Function)  
INDUSTRY NAMES: BUSN (Any type of business); ELEC (Electronics); ENG (Engineering and Manufacturing)  
NAICS CODES: 334413 (Semiconductor and Related Device Manufacturing)  
TICKER SYMBOLS: HRS  
SPECIAL FEATURES: COMPANY

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

Melbourne, Fla. - Harris Semiconductor is offering a special-purpose signal-processing chip for **histogram calculation** .